# PART A

# IONOSPHERIC DATA

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U. S. DEPARTMENT OF COMMERCE
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CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

CRPL-F 188
PART A

NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
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# IONOSPHERIC DATA

## CONTENTS

| | Page |
|---|---|
| Symbols, Terminology, Conventions | ii |
| World-Wide Sources of Ionospheric Data | v |
| Tabulations of Electron Density Data | vii |
| Tables of Ionospheric Data | 1 |
| Graphs of Ionospheric Data | 13 |
| Index of Tables and Graphs of Ionospheric Data in CRPL-F 188 (Part A) | 49 |

# SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1952, and continuing through December 1956, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1957, the symbols used are given in NBS Report 5033, "Summary of Changes in Ionospheric Vertical Soundings, Observing and Scaling Procedures - Effective 1 January 1957," which draws upon the First Report of the Special Committee on World-Wide Ionospheric Soundings (URSI/AGI), Brussels, Sept. 2, 1956. A list of these symbols is available upon request.

In the Second Report of the Special Committee on World-Wide Ionospheric Soundings of the URSI/AGI Committee, May 1957, a new descriptive letter was introduced:

M Measurement questionable because the ordinary and extraordinary components are not distinguishable.

There was an expansion in meaning of the following:

Z (1) (qualifying letter) Measurement deduced from the third magnetoionic component.
(2) (descriptive letter) Third magnetoionic component present.

Beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given above.

a. For all ionospheric characteristics:

Values missing because of A, C, F, H, L, N or R are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F (and h'E near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of G are counted:

1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic; the descriptive symbol D, only when it replaces a frequency characteristic.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of E or G are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

B for fEs is counted on the low side when there is a numerical value of a higher layer characteristic; otherwise it is omitted from the median count.

S for fEs is counted on the low side at night; during the day it is omitted from the median count (beginning with data for November 1957).

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with CRPL-F188, Part A, issued April 1960, the count is given for foF2 in the tables of medians. It is regretted that space limitations prevent including detailed counts for other characteristics.

To indicate further in a general manner the relative reliability of the data, for the F2 layer, h'F or foEs, if the count is from five to nine, or, for all layers, if more than half of the data used to compute the medians are doubtful (either doubtful or interpolated), the median is enclosed in parentheses. Medians are computed for less than five values for foF2 only.

Ordinarily, a blank space in the fEs or foEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'F2 or h'F1, foF1, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'F1 and foF1 is usually the result of seasonal effects.

There is no indication on the graphs of the relative reliability of the observed data; it is necessary to consult the tables for such information.

The tables may contain median values of either foEs or fEs. The graph of median Es corresponds to the table. Percentage curves of fEs are estimated from values of foEs when necessary.

The latest available information follows concerning the smoothed observed Zürich numbers beginning with the minimum of April 1954. Final numbers are listed through June 1959.

Smoothed Observed Sunspot Number

| Month | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1954 | | | | 3 | 4 | 4 | 5 | 7 | 8 | 8 | 9 | 12 |
| 1955 | 14 | 16 | 19 | 23 | 29 | 35 | 40 | 46 | 55 | 64 | 73 | 81 |
| 1956 | 89 | 98 | 109 | 119 | 127 | 137 | 146 | 150 | 151 | 156 | 160 | 164 |
| 1957 | 170 | 172 | 174 | 181 | 186 | 188 | 191 | 194 | 197 | 200 | 201 | 200 |
| 1958 | 199 | 201 | 201 | 197 | 191 | 187 | 185 | 185 | 184 | 182 | 181 | 180 |
| 1959 | 179 | 177 | 174 | 169 | 165 | 161 | 156 | 151 | 145 | | | |
| 1960 | | | | | | | | | | | | |

# WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 72 and figures 1 to 144 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Commonwealth of Australia, Ionospheric Prediction Service of the Commonwealth Observatory:
Brisbane, Australia

Meteorological Service of the Belgian Congo and Ruanda-Urundi:
Bunia, Belgian Congo
Elisabethville, Belgian Congo
Leopoldville, Belgian Congo

Electronics Directorate of the Brazilian Navy:
Natal, Brazil

British Department of Scientific and Industrial Research, Radio Research Board:
Falkland Is.
Ibadan, Nigeria (University College of Ibadan)
Singapore, British Malaya
Slough, England

Defence Research Board, Canada:
Resolute Bay, Canada
Winnipeg, Canada

Universidad de Concepcion:
Concepcion, Chile

Radio Wave Research Laboratories, National Taiwan University, Taipeh, Formosa, China:
Formosa, China

Instituto Geofisico de Los Andes Colombianos:
Bogota, Colombia

Danish National Committee of URSI:
Godhavn, Greenland
Narsarssuak, Greenland

General Direction of Posts and Telegraphs, Helsinki, Finland:
Nurmijarvi, Finland

The Finnish Academy of Sciences and Letters:
Sodankyla, Finland

Ionospheric Institute, Breisach, Germany:
Freiburg, Germany

Central Institute of Meteorology, Budapest, Hungary:
Budapest, Hungary

Icelandic Post and Telegraph Administration:
Reykjavik, Iceland

National Institute of Geophysics, City University, Rome, Italy:
Rome, Italy

Ministry of Postal Services, Radio Research Laboratories, Tokyo, Japan:
Akita, Japan
Tokyo (Kokubunji), Japan
Wakkanai, Japan
Yamagawa, Japan

Christchurch Geophysical Observatory, New Zealand Department of Scientific and Industrial Research:
Campbell I.

Norwegian Defence Research Establishment, Kjeller per Lillestrom, Norway:
Tromso, Norway

Manila Observatory:
Baguio, P. I.

Institute of Terrestrial Magnetism, Ionosphere and Radio Propagation, Moscow, U.S.S.R.:
Moscow

South African Council for Scientific and Industrial Research:
Capetown, Union of South Africa
Johannesburg, Union of South Africa

Research Institute of National Defence, Stockholm, Sweden:
Kiruna, Sweden
Lycksele, Sweden
Upsala, Sweden

Royal Board of Swedish Telegraphs, Radio Department, Stockholm, Sweden:
Lulea, Sweden

United States Army Signal Corps:
Adak, Alaska
Cape Canaveral, Florida
Grand Bahama I.
San Salvador I.
Thule, Greenland
White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):
Anchorage, Alaska
Boulder, Colorado
Byrd Station, Antarctica
Fairbanks (College), Alaska (Geophysical Institute of the University of Alaska)
Huancayo, Peru (Instituto Geofisico de Huancayo)
Maui, Hawaii
Point Barrow, Alaska
Talara, Peru (Instituto Geofisico de Huancayo)
Washington, D. C.

NOTE

Publication of Tabulations of Electron Density Data from Puerto Rico will be resumed in the next issue.

# TABLES OF IONOSPHERIC DATA

DECEMBER 1959—MARCH 1960

Table 1

Thule, Greenland (76.6°N, 68.7°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | --- | 0 | 275 | | | | | |
| 01 | | (4.1) | 1 | 265 | | | | | ---- |
| 02 | | (3.4) | 3 | 280 | | | | | ---- |
| 03 | | (3.45) | 2 | 280 | | | | | ---- |
| 04 | | (3.7) | 2 | 280 | | | | | ---- |
| 05 | | (3.1) | 1 | 280 | | | | | ---- |
| 06 | | (3.2) | 1 | 270 | | | | | ---- |
| 07 | | (3.9) | 3 | 275 | | --- | --- | | ---- |
| 08 | | (6.5) | 1 | 270 | | --- | --- | | ---- |
| 09 | | (5.2) | 3 | 255 | | --- | --- | | ---- |
| 10 | | (5.05) | 2 | 260 | | --- | --- | | ---- |
| 11 | | (7.8) | 5 | 250 | | --- | --- | 2.7 | (2.95) |
| 12 | | (5.0) | 3 | 245 | | --- | --- | 2.2 | ---- |
| 13 | | (9.0) | 3 | 250 | | --- | --- | | ---- |
| 14 | | (6.3) | 2 | 245 | | --- | --- | 2.2 | ---- |
| 15 | | (6.1) | 5 | 255 | | | | 2.5 | (2.80) |
| 16 | | (6.8) | 3 | 250 | | | | 3.8 | ---- |
| 17 | | (5.2) | 6 | 250 | | | | 4.0 | (2.70) |
| 18 | | (6.0) | 1 | <255 | | | | 3.4 | ---- |
| 19 | | (5.15) | 2 | 250 | | | | 3.6 | |
| 20 | | (4.5) | 3 | 265 | | | | 3.7 | ---- |
| 21 | | (5.0) | 5 | 260 | | | | 2.2 | ---- |
| 22 | | (3.8) | 5 | 265 | | | | | ---- |
| 23 | | (4.7) | 3 | <270 | | | | | ---- |

Time: 75.0°W
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds

Table 2

Point Barrow, Alaska (71.3°N, 156.8°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (3.6) | 9 | | | | | 5.2 | (3.05) |
| 01 | | (3.85) | 8 | | | | | 5.8 | (2.70) |
| 02 | | (3.95) | 8 | | | | | 5.1 | (2.65) |
| 03 | | (4.0) | 10 | | | | | 4.4 | (2.70) |
| 04 | | (4.3) | 14 | | | | | 3.6 | (2.65) |
| 05 | | (3.9) | 9 | | | | | 3.0 | (2.65) |
| 06 | | (3.9) | 8 | | | | | 3.8 | (2.65) |
| 07 | | (4.0) | 8 | | | | | 4.0 | ---- |
| 08 | | (4.5) | 10 | | | | | 3.9 | (2.75) |
| 09 | | (4.65) | 12 | | | | | 4.0 | (2.60) |
| 10 | | (5.05) | 16 | | | | | 3.6 | (2.65) |
| 11 | | 5.6 | 14 | | | --- | --- | 3.0 | 2.72 |
| 12 | | 5.9 | 22 | | | --- | --- | | 2.78 |
| 13 | | 6.7 | 24 | | | --- | --- | | 2.82 |
| 14 | | 7.3 | 27 | | | --- | --- | | 2.80 |
| 15 | | 7.75 | 30 | | | --- | --- | | 2.80 |
| 16 | | 7.4 | 29 | | | --- | --- | | 2.80 |
| 17 | | (5.0) | 25 | | | | | 2.3 | (2.80) |
| 18 | | (3.8) | 20 | | | | | 2.5 | 2.85 |
| 19 | | (3.7) | 19 | | | | | 2.9 | 2.75 |
| 20 | | (4.4) | 19 | | | | | 3.4 | 2.95 |
| 21 | | 3.8 | 15 | | | | | 3.7 | 2.80 |
| 22 | | (4.0) | 16 | | | | | 3.9 | (2.75) |
| 23 | | (3.6) | 8 | | | | | 6.7 | (2.85) |

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 3

Fairbanks, Alaska (64.9°N, 147.8°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (3.5) | 6 | | | | | 4.8 | ---- |
| 01 | | (3.0) | 7 | | | | | 4.7 | (2.90) |
| 02 | | (2.8) | 5 | | | | | 4.6 | (2.70) |
| 03 | | (2.5) | 5 | | | | | 4.5 | ---- |
| 04 | | (4.6) | 7 | | | | | 4.5 | (2.60) |
| 05 | | (4.45) | 10 | | | | | 4.2 | (2.65) |
| 06 | | (4.6) | 12 | | | | | 2.7 | (2.75) |
| 07 | | (4.3) | 10 | | | | | 3.4 | (2.75) |
| 08 | | (4.0) | 15 | | | | | | (2.75) |
| 09 | | (4.65) | 18 | | | | | | (3.00) |
| 10 | | (5.0) | 22 | | | | | | (3.10) |
| 11 | | 7.1 | 26 | | | | | | 3.10 |
| 12 | | (8.3) | 25 | | | | | | (3.10) |
| 13 | | 9.05 | 26 | | | | | | 3.00 |
| 14 | | 9.25 | 28 | | | | | | 3.10 |
| 15 | | 8.95 | 28 | | | | | | 3.05 |
| 16 | | (7.75) | 28 | | | | | | (3.15) |
| 17 | | (5.85) | 24 | | | | | | (3.15) |
| 18 | | (4.1) | 20 | | | | | | (3.10) |
| 19 | | (3.0) | 21 | | | | | | (3.05) |
| 20 | | (3.05) | 14 | | | | | 2.4 | (3.10) |
| 21 | | (2.7) | 13 | | | | | 3.7 | (3.00) |
| 22 | | (3.5) | 7 | | | | | 4.0 | (3.02) |
| 23 | | (3.1) | 7 | | | | | 4.4 | (3.00) |

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 4

Anchorage, Alaska (61.2°N, 149.9°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (2.9) | 19 | | | | | | (2.85) |
| 01 | | (2.8) | 18 | | | | | | (2.70) |
| 02 | | (2.7) | 13 | | | | | | (2.60) |
| 03 | | (3.2) | 13 | | | | | | (2.60) |
| 04 | | (3.0) | 9 | | | | | | ---- |
| 05 | | (3.2) | 13 | | | | | | (2.70) |
| 06 | | (3.6) | 9 | | | | | | (2.70) |
| 07 | | (3.3) | 13 | | | | | | (2.60) |
| 08 | | >3.4 | 21 | | | | | | (2.75) |
| 09 | | 5.45 | 22 | | | | | | 3.15 |
| 10 | | 6.7 | 23 | | | | | | 3.20 |
| 11 | | 8.1 | 28 | | | | | | 3.15 |
| 12 | | >9.0 | 25 | | | | | | 3.15 |
| 13 | | 9.8 | 29 | | | | | | 3.12 |
| 14 | | 9.8 | 28 | | | | | | 3.10 |
| 15 | | >9.0 | 30 | | | | | | 3.10 |
| 16 | | 8.7 | 29 | | | | | | 3.15 |
| 17 | | 6.75 | 30 | | | | | | 3.15 |
| 18 | | (5.0) | 30 | | | | | | (3.12) |
| 19 | | (3.1) | 25 | | | | | | 3.12 |
| 20 | | (2.7) | 21 | | | | | | (3.10) |
| 21 | | (2.6) | 17 | | | | | | (3.08) |
| 22 | | (2.5) | 19 | | | | | | (3.02) |
| 23 | | (2.75) | 18 | | | | | | (2.90) |

Time: 150.0°W
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds

Table 5

Narsarssuak, Greenland (61.2°N, 45.4°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (4.5) | 13 | | | | | 4.6 | (2.80) |
| 01 | | (3.9) | 10 | | | | | 4.3 | (2.55) |
| 02 | | (3.9) | 6 | | | | | 3.8 | (2.60) |
| 03 | | (4.3) | 10 | | | | | 4.0 | (2.80) |
| 04 | | (4.5) | 9 | | | | | 3.7 | (2.72) |
| 05 | | (4.75) | 14 | | | | | 3.9 | (2.85) |
| 06 | | (4.55) | 16 | | | | | 4.0 | (2.90) |
| 07 | | (3.85) | 14 | | | | | 3.0 | (2.90) |
| 08 | | (4.0) | 23 | | | | | 2.6 | (2.85) |
| 09 | | 6.15 | 26 | | | --- | ---- | | 3.10 |
| 10 | | 8.3 | 29 | | | (131) | 2.30 | | 3.15 |
| 11 | | 9.4 | 29 | | | --- | ---- | | 3.10 |
| 12 | | (10.0) | 30 | | | <135 | 2.35 | | (3.20) |
| 13 | | (9.55) | 28 | | | 120 | 2.45 | | (3.15) |
| 14 | | (7.95) | 26 | | | <134 | 2.05 | | (3.05) |
| 15 | | (5.7) | 25 | | | --- | ---- | 2.6 | (3.05) |
| 16 | | (5.3) | 14 | | | | | 2.7 | (2.90) |
| 17 | | (4.8) | 11 | | | | | 3.2 | (2.92) |
| 18 | | (4.5) | 19 | | | | | 3.4 | (2.80) |
| 19 | | (5.0) | 9 | | | | | 4.4 | (2.80) |
| 20 | | (5.3) | 8 | | | | | 5.9 | (2.78) |
| 21 | | (4.45) | 8 | | | | | 4.0 | (2.70) |
| 22 | | (4.35) | 10 | | | | | 4.5 | (2.80) |
| 23 | | (4.8) | 10 | | | | | 4.6 | ---- |

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 6

Adak, Alaska (51.9°N, 176.6°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 2.8 | 27 | 315 | | | | | 2.70 |
| 01 | | 2.9 | 26 | 310 | | | | | 2.65 |
| 02 | | 2.8 | 26 | 330 | | | | | 2.60 |
| 03 | | 2.85 | 24 | 325 | | | | | 2.60 |
| 04 | | 2.9 | 23 | 325 | | | | 1.1 | 2.65 |
| 05 | | 2.9 | 24 | 330 | | | | | 2.60 |
| 06 | | 2.8 | 26 | 290 | | | | | 2.70 |
| 07 | | 3.45 | 24 | 270 | | | | | 2.70 |
| 08 | | 6.55 | 30 | 235 | | 110 | (1.95) | 2.2 | 3.25 |
| 09 | | 9.4 | 31 | 225 | | <122 | 2.28 | | 3.40 |
| 10 | | 10.95 | 30 | 225 | | (115) | 2.55 | | 3.35 |
| 11 | --- | 11.5 | 31 | 220 | --- | <120 | 2.75 | | 3.30 |
| 12 | | 11.9 | 30 | 220 | | (119) | 2.70 | | 3.30 |
| 13 | | 12.2 | 29 | 220 | | <120 | 2.65 | | 3.25 |
| 14 | | 11.35 | 30 | 220 | | <125 | 2.40 | | 3.30 |
| 15 | | 10.1 | 31 | 215 | | (135) | 2.00 | | 3.35 |
| 16 | | 8.4 | 31 | 210 | | (132) | 1.35 | 1.7 | 3.30 |
| 17 | | 6.7 | 31 | 215 | | | | 1.4 | 3.40 |
| 18 | | 4.65 | 30 | 215 | | | | | 3.40 |
| 19 | | 2.85 | 26 | 235 | | | | | 3.30 |
| 20 | | 2.55 | 30 | 250 | | | | | 3.10 |
| 21 | | 2.35 | 26 | 275 | | | | | 3.00 |
| 22 | | 2.5 | 25 | 290 | | | | | 2.90 |
| 23 | | 2.7 | 29 | <300 | | | | | 2.72 |

Time: 180.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 7

Washington, D. C. (38.7°N, 77.1°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 4.25 | 30 | 275 | | | | | 2.82 |
| 01 | | 4.1 | 31 | 290 | | | | | 2.80 |
| 02 | | 3.9 | 31 | 280 | | | | | 2.80 |
| 03 | | 3.7 | 31 | 280 | | | | | 2.90 |
| 04 | | 3.5 | 31 | 280 | | | | | 2.90 |
| 05 | | 3.3 | 31 | 280 | | | | | 2.80 |
| 06 | | (3.2) | 31 | 285 | | | | | (2.80) |
| 07 | | 4.4 | 31 | 260 | | --- | ---- | | 3.00 |
| 08 | | 7.7 | 31 | 230 | | 121 | 2.15 | 2.6 | 3.30 |
| 09 | --- | 9.8 | 31 | 230 | | 115 | 2.70 | 2.8 | 3.25 |
| 10 | --- | 11.1 | 31 | 225 | | 111 | 3.00 | | 3.15 |
| 11 | --- | 12.2 | 31 | 225 | | 113 | 3.25 | | 3.15 |
| 12 | --- | 12.2 | 31 | 220 | | 112 | 3.38 | | 3.10 |
| 13 | --- | 12.1 | 31 | 225 | | 117 | 3.20 | | 3.05 |
| 14 | | 12.0 | 31 | 230 | | 115 | 3.08 | | 3.05 |
| 15 | | 12.0 | 31 | 230 | | 119 | 2.80 | 2.8 | 3.05 |
| 16 | | 11.5 | 31 | 230 | | 120 | 2.30 | | 3.05 |
| 17 | | 10.7 | 31 | 220 | | | | 1.9 | 3.05 |
| 18 | | 9.9 | 31 | 225 | | | | | 3.05 |
| 19 | | 7.9 | 31 | 230 | | | | | 3.10 |
| 20 | | 6.7 | 31 | 230 | | | | | 3.05 |
| 21 | | 5.4 | 31 | 245 | | | | | 3.00 |
| 22 | | 4.8 | 31 | 260 | | | | | 2.95 |
| 23 | | 4.5 | 31 | 265 | | | | | 2.90 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 8

Maui, Hawaii (20.8°N, 156.5°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 4.0 | 31 | 260 | | | | 2.3 | 2.70 |
| 01 | | 4.7 | 31 | 260 | | | | | 3.00 |
| 02 | | 4.4 | 31 | 235 | | | | | 3.25 |
| 03 | | 3.8 | 31 | 245 | | | | | 3.10 |
| 04 | | 3.1 | 31 | <275 | | | | | 2.52 |
| 05 | | 2.9 | 31 | <340 | | | | | 2.50 |
| 06 | | 3.0 | 31 | (315) | | | | | 2.55 |
| 07 | | 5.9 | 31 | 270 | | <159 | 1.90 | | 3.00 |
| 08 | --- | 9.8 | 31 | 245 | | 115 | 2.65 | 2.0 | 3.20 |
| 09 | (250) | 12.5 | 31 | 235 | | 110 | 3.20 | 3.3 | 3.20 |
| 10 | 260 | 13.2 | 30 | 230 | | 107 | 3.50 | 3.9 | 3.20 |
| 11 | 250 | 13.0 | 30 | 220 | | 107 | 3.70 | >3.9 | 3.00 |
| 12 | (300) | 13.5 | 31 | <220 | | 107 | (3.00) | 4.3 | 2.90 |
| 13 | (305) | 14.9 | 31 | 215 | | 107 | 3.72 | 4.5 | 2.90 |
| 14 | <300 | 15.0 | 31 | 230 | | (109) | 3.62 | 4.1 | 2.90 |
| 15 | 280 | 15.0 | 31 | <235 | | 109 | 3.40 | 4.1 | 2.95 |
| 16 | --- | 14.1 | 31 | 235 | | (113) | 3.00 | 4.0 | 2.95 |
| 17 | | 13.3 | 31 | 230 | | 117 | 2.40 | 4.2 | 3.05 |
| 18 | | 12.5 | 31 | 220 | | | | 4.9 | 3.20 |
| 19 | | 10.0 | 31 | 205 | | | | 4.2 | 3.25 |
| 20 | | 0.5 | 31 | 225 | | | | 3.7 | 3.00 |
| 21 | | 8.2 | 31 | 225 | | | | 3.8 | 3.20 |
| 22 | | 7.4 | 31 | 220 | | | | 2.7 | 3.10 |
| 23 | | 5.6 | 31 | 225 | | | | 2.3 | 3.00 |

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 9

Baguio, P. I. (16.4°N, 120.6°E) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 10.5 | 31 | 250 | | | | | 3.00 |
| 01 | | 9.9 | 31 | 245 | | | | | 3.10 |
| 02 | | 8.6 | 30 | 240 | | | | | 3.10 |
| 03 | | 6.8 | 31 | 245 | | | | | 3.10 |
| 04 | | 5.5 | 31 | 250 | | | | | 2.02 |
| 05 | | 5.2 | 29 | 270 | | | | | 2.90 |
| 06 | | 5.75 | 30 | 300 | | | | | 2.70 |
| 07 | | 9.4 | 31 | 275 | | --- | ---- | | 2.90 |
| 08 | | 12.0 | 31 | 260 | | 119 | 3.00 | | 2.95 |
| 09 | --- | 15.0 | 31 | 245 | | 119 | (3.50) | | 2.95 |
| 10 | --- | 14.0 | 31 | 230 | --- | 119 | (3.75) | | 2.65 |
| 11 | --- | (14.5) | 31 | (230) | --- | 119 | (3.85) | 4.0 | (2.30) |
| 12 | | (13.8) | 31 | (230) | | 119 | (3.92) | | (2.20) |
| 13 | | (13.2) | 31 | <245 | | (119) | (3.80) | | (2.35) |
| 14 | | 13.6 | 31 | 245 | | 119 | (3.65) | | 2.45 |
| 15 | | (13.0) | 31 | 250 | | <121 | 3.35 | | (2.45) |
| 16 | | (13.7) | 31 | 260 | | (125) | (2.90) | | (2.52) |
| 17 | | (13.4) | 31 | 280 | | --- | ---- | | (2.55) |
| 18 | | >13.0 | 31 | 280 | | | | | (2.60) |
| 19 | | (12.85) | 30 | <300 | | | | | (2.65) |
| 20 | | (12.8) | 30 | 290 | | | | | (2.75) |
| 21 | | >12.5 | 29 | 260 | | | | | (2.90) |
| 22 | | (11.8) | 31 | 245 | | | | | (2.95) |
| 23 | | 11.0 | 31 | 245 | | | | | 2.95 |

Time: 120.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 10

Talara, Peru (4.6°S, 01.3°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 11.6 | 15 | <250 | | | | 4.5 | 3.02 |
| 01 | | 9.3 | 15 | 245 | | | | 3.9 | 3.15 |
| 02 | | 7.1 | 18 | 250 | | | | 4.0 | 3.10 |
| 03 | | 6.65 | 20 | 240 | | | | 2.5 | 3.10 |
| 04 | | 6.35 | 24 | 235 | | | | 2.2 | 3.20 |
| 05 | | 5.4 | 27 | 240 | | | | 3.3 | 3.15 |
| 06 | | 6.1 | 28 | 280 | | --- | ---- | 2.4 | 2.90 |
| 07 | | 9.85 | 30 | 255 | | 121 | 2.50 | 4.1 | 2.98 |
| 08 | | 12.2 | 31 | 240 | | 115 | 3.15 | 4.0 | 3.00 |
| 09 | --- | 13.6 | 31 | 225 | | 113 | 3.60 | 3.9 | 2.95 |
| 10 | --- | 13.6 | 31 | 215 | | 111 | 3.90 | 4.9 | 2.65 |
| 11 | --- | 13.7 | 31 | 210 | | 111 | 4.05 | 4.3 | 2.50 |
| 12 | --- | 13.7 | 31 | 210 | | 111 | 4.10 | | 2.38 |
| 13 | --- | >13.0 | 31 | (215) | | 109 | 4.05 | 4.6 | 2.38 |
| 14 | --- | 14.0 | 31 | (215) | | 109 | 3.95 | 6.0 | 2.35 |
| 15 | --- | 14.1 | 31 | (220) | | 111 | 3.70 | 5.3 | 2.40 |
| 16 | | 14.0 | 31 | (240) | | 109 | 3.40 | 6.0 | 2.45 |
| 17 | | 14.1 | 31 | (255) | | 112 | 3.05 | 5.8 | 2.45 |
| 18 | | (13.2) | 31 | <280 | | (129) | (2.25) | 4.6 | 2.55 |
| 19 | | (13.45) | 30 | 285 | | | | 4.4 | 2.65 |
| 20 | | >12.9 | 28 | 300 | | | | 2.9 | 2.55 |
| 21 | | >12.5 | 23 | 275 | | | | 3.5 | (2.65) |
| 22 | | (12.3) | 23 | 265 | | | | 3.5 | 2.70 |
| 23 | | >12.05 | 18 | <260 | | | | 4.4 | 2.90 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.S seconds

Table 11

Huancayo, Peru (12.0°S, 75.3°W) December 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (0.2) | 7 | <355 | | | | | (2.80) |
| 01 | | (7.5) | 9 | 330 | | | | | (2.85) |
| 02 | | 6.9 | 12 | 320 | | | | | 3.00 |
| 03 | | 6.3 | 11 | 290 | | | | | 3.18 |
| 04 | | 5.8 | 14 | <245 | | | | 2.1 | 3.28 |
| 05 | | 4.6 | 17 | 245 | | | | 3.7 | 3.20 |
| 06 | | 7.7 | 25 | 265 | | (129) | 2.15 | 4.5 | 3.02 |
| 07 | | 10.5 | 28 | 240 | | 114 | 2.90 | 6.2 | 2.92 |
| 08 | --- | 12.0 | 30 | 230 | | 113 | (3.45) | 7.7 | 2.72 |
| 09 | --- | 12.8 | 30 | 220 | | <113 | (3.80) | 9.0 | 2.55 |
| 10 | --- | >12.8 | 29 | 215 | | 113 | (4.00) | 9.3 | 2.32 |
| 11 | --- | 12.6 | 29 | 210 | | --- | (4.15) | 9.9 | 2.25 |
| 12 | --- | 12.1 | 29 | 200 | | --- | (4.20) | 9.3 | 2.30 |
| 13 | --- | >12.6 | 29 | 200 | | 111 | (4.15) | 9.0 | 2.25 |
| 14 | | 12.9 | 29 | 210 | | 113 | (4.00) | 7.8 | 2.30 |
| 15 | | 13.3 | 29 | 215 | | 111 | (3.65) | 7.5 | 2.35 |
| 16 | | >13.15 | 30 | 225 | | 113 | (3.35) | 7.9 | 2.30 |
| 17 | | 12.5 | 31 | 255 | | 113 | (2.85) | 7.0 | 2.20 |
| 18 | | >11.8 | 31 | 280 | | (129) | 2.05 | 4.8 | 2.25 |
| 19 | | >10.6 | 31 | 320 | | | | | 2.30 |
| 20 | | 10.15 | 26 | (365) | | | | | 2.20 |
| 21 | | 0.7 | 17 | 390 | | | | | 2.25 |
| 22 | | 9.2 | 11 | 380 | | | | | 2.40 |
| 23 | | (8.55) | 8 | 355 | | | | | (2.55) |

Time: 75.0°W
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds

Table 12

Fairbanks, Alaska (64.9°N, 147.8°W) November 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (4.3) | 3 | | | | | 4.4 | ---- |
| 01 | | (3.1) | 3 | | | | | 5.0 | ---- |
| 02 | | (4.3) | 1 | | | | | 4.5 | |
| 03 | | (4.6) | 7 | | | | | 5.2 | (2.60) |
| 04 | | (5.8) | 3 | | | | | 5.0 | ---- |
| 05 | | (4.3) | 4 | | | | | 3.7 | ---- |
| 06 | | (5.35) | 8 | | | | | 3.6 | (2.55) |
| 07 | | (4.7) | 10 | | | | | 2.7 | (2.80) |
| 08 | | (4.5) | 14 | | | | | 1.7 | (2.82) |
| 09 | | (5.85) | 14 | | | | | | (3.00) |
| 10 | | 7.05 | 18 | | | | | | 3.08 |
| 11 | | 6.8 | 23 | | | | | | 3.10 |
| 12 | | 7.8 | 25 | | | | | | 3.05 |
| 13 | | 8.3 | 26 | | | | | | 3.10 |
| 14 | | 9.0 | 25 | | | | | | 3.05 |
| 15 | | 9.15 | 26 | | | | | | 3.10 |
| 16 | | (8.1) | 27 | | | | | | (3.10) |
| 17 | | >7.1 | 20 | | | | | | (3.15) |
| 18 | | (5.5) | 21 | | | | | | 2.98 |
| 19 | | (4.05) | 16 | | | | | 1.6 | (3.00) |
| 20 | | (3.75) | 10 | | | | | 3.2 | (3.00) |
| 21 | | (3.5) | 9 | | | | | 3.6 | (2.95) |
| 22 | | (4.15) | 6 | | | | | 4.0 | ---- |
| 23 | | (3.85) | 2 | | | | | 3.7 | ---- |

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 13

Reykjavik Iceland (64.1°N, 21.8°W) November 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (4.0) | 5 | 330 | | | | 3.8 | ---- |
| 01 | | >4.2 | 5 | (400) | | | | 3.8 | ---- |
| 02 | | >4.5 | 5 | 335 | | | | 4.0 | ---- |
| 03 | | (4.2) | 5 | (360) | | | | 4.0 | ---- |
| 04 | | (4.8) | 6 | (330) | | | | 4.3 | (2.80) |
| 05 | | (3.8) | 9 | 340 | | | | 1.8 | (2.78) |
| 06 | | (3.7) | 12 | 300 | | | | 2.8 | (2.80) |
| 07 | | (3.9) | 14 | 270 | | | | | (2.80) |
| 08 | | 4.4 | 19 | 265 | | | | | 2.98 |
| 09 | | 5.65 | 26 | 265 | | --- | --- | | 3.00 |
| 10 | --- | 7.2 | 30 | 250 | | --- | --- | | 3.05 |
| 11 | --- | 8.7 | 30 | 260 | | --- | --- | | 3.10 |
| 12 | --- | 9.75 | 28 | 240 | | --- | --- | | 3.10 |
| 13 | --- | 9.2 | 30 | 240 | | --- | --- | | 3.10 |
| 14 | --- | 8.95 | 26 | 245 | | --- | --- | | 3.10 |
| 15 | | (8.0) | 25 | 240 | | --- | --- | | (3.10) |
| 16 | | (5.65) | 14 | 260 | | --- | --- | 2.5 | (3.15) |
| 17 | | (4.8) | 11 | 315 | | | | 3.6 | (2.95) |
| 18 | | (4.45) | 14 | (335) | | | | 4.3 | (2.90) |
| 19 | | (4.8) | 12 | (310) | | | | 4.0 | (2.80) |
| 20 | | (5.0) | 6 | 310 | | | | 3.9 | (2.70) |
| 21 | | (4.1) | 5 | 355 | | | | 3.6 | ---- |
| 22 | | (4.4) | 10 | 360 | | | | 4.3 | (2.60) |
| 23 | | (5.0) | 5 | 370 | | | | 4.4 | ---- |

Time: 15.0°W
Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 14

Narsarssuak, Greenland (61.2°N, 45.4°W) November 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (1.5) | 17 | | | | | 3.6 | (2.70) |
| 01 | | (4.2) | 9 | | | | | 3.2 | (2.60) |
| 02 | | (4.1) | 9 | | | | | 3.6 | (2.60) |
| 03 | | (4.1) | 9 | | | | | 3.8 | (2.65) |
| 04 | | (4.4) | 13 | | | | | 4.1 | (2.70) |
| 05 | | (4.1) | 9 | | | | | 4.0 | (2.70) |
| 06 | | (4.2) | 13 | | | | | 3.1 | (2.80) |
| 07 | | (4.0) | 15 | | | --- | ---- | | (2.92) |
| 08 | | 5.25 | 24 | | | --- | ---- | | 3.05 |
| 09 | | 7.0 | 27 | | | --- | ---- | | 3.08 |
| 10 | | 8.7 | 29 | | | 117 | ---- | | 3.00 |
| 11 | | 9.9 | 29 | | | <125 | 2.50 | | 3.02 |
| 12 | | 9.8 | 29 | | | (121) | 2.50 | | 3.05 |
| 13 | | 9.6 | 27 | | | (120) | 2.50 | | 3.05 |
| 14 | | (9.0) | 24 | | | <124 | 2.50 | | 3.05 |
| 15 | | (6.6) | 20 | | | (123) | ---- | 2.9 | (3.00) |
| 16 | | (5.5) | 19 | | | | | 4.0 | (2.80) |
| 17 | | (5.3) | 19 | | | | | 3.4 | (2.95) |
| 18 | | (5.0) | 15 | | | | | 3.8 | (2.80) |
| 19 | | (4.5) | 13 | | | | | 3.7 | (2.75) |
| 20 | | (4.9) | 16 | | | | | 3.5 | (2.65) |
| 21 | | (4.9) | 11 | | | | | 3.5 | (2.70) |
| 22 | | (4.8) | 10 | | | | | 4.9 | (2.90) |
| 23 | | (4.8) | 11 | | | | | 4.1 | (2.60) |

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 15

Boulder, Colorado (40.0°N, 105.3°W) November 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 3.5 | 29 | 295 | | | | | 2.75 |
| 01 | | 3.5 | 29 | 295 | | | | | 2.75 |
| 02 | | 3.6 | 28 | 300 | | | | | 2.70 |
| 03 | | 3.55 | 28 | 300 | | | | | 2.70 |
| 04 | | 3.45 | 28 | <300 | | | | | 2.75 |
| 05 | | 3.25 | 28 | 295 | | | | | 2.70 |
| 06 | | 3.4 | 27 | 270 | | --- | ---- | | 2.80 |
| 07 | | 6.0 | 27 | 235 | | <115 | 1.85 | | 3.10 |
| 08 | | 8.8 | 28 | 225 | --- | <109 | 2.50 | 2.6 | 3.30 |
| 09 | (240) | 10.05 | 28 | 220 | --- | 105 | 2.90 | | 3.25 |
| 10 | 230 | 11.2 | 27 | 220 | --- | <105 | 3.12 | | 3.15 |
| 11 | (240) | 11.6 | 27 | 210 | --- | (103) | 3.25 | | 3.10 |
| 12 | 250 | 12.0 | 27 | 210 | --- | (105) | 3.30 | | 3.05 |
| 13 | 250 | 12.0 | 27 | 215 | --- | <107 | 3.25 | | 3.00 |
| 14 | --- | 12.1 | 27 | 230 | | (105) | 3.12 | | 3.00 |
| 15 | --- | 11.8 | 27 | 225 | | (107) | 2.75 | | 3.05 |
| 16 | | 11.5 | 27 | 220 | | <113 | 2.25 | | 3.10 |
| 17 | | 10.2 | 28 | 210 | | | | | 3.10 |
| 18 | | 8.95 | 28 | 210 | | | | | 3.10 |
| 19 | | 7.2 | 29 | 210 | | | | | 3.10 |
| 20 | | 5.5 | 29 | 220 | | | | | 3.15 |
| 21 | | 4.1 | 29 | 230 | | | | | 3.05 |
| 22 | | 3.6 | 29 | 260 | | | | | 2.90 |
| 23 | | 3.5 | 28 | 280 | | | | | 2.80 |

Time: 105.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 16

White Sands, New Mexico (32.3°N, 106.5°W) November 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 3.5 | 28 | <300 | | | | | 2.68 |
| 01 | | 3.5 | 27 | <300 | | | | | 2.70 |
| 02 | | 3.7 | 28 | <300 | | | | | 2.68 |
| 03 | | 3.6 | 29 | (280) | | | | | 2.75 |
| 04 | | 3.7 | 29 | <295 | | | | | 2.75 |
| 05 | | 3.6 | 29 | <295 | | | | | 2.75 |
| 06 | | 3.7 | 29 | 270 | | | | | 2.85 |
| 07 | | 7.15 | 28 | 235 | | <129 | 2.10 | | 3.25 |
| 08 | | 10.00 | 28 | 235 | | 117 | 2.80 | 2.8 | 3.30 |
| 09 | | 11.5 | 29 | 230 | | 115 | (3.12) | 3.2 | 3.25 |
| 10 | --- | 11.7 | 27 | 220 | | 115 | 3.40 | 3.4 | 3.10 |
| 11 | --- | 12.5 | 27 | 220 | | 113 | 3.50 | | 3.00 |
| 12 | --- | 12.5 | 27 | 220 | | 115 | 3.60 | | 2.90 |
| 13 | --- | 12.8 | 28 | 225 | | 115 | 3.55 | | 2.90 |
| 14 | | 12.45 | 28 | 235 | | 116 | 3.40 | | 2.90 |
| 15 | | 12.5 | 29 | 235 | | 117 | 3.10 | | 3.00 |
| 16 | | 12.0 | 29 | 235 | | <121 | 2.60 | 2.6 | 3.05 |
| 17 | | 11.05 | 30 | 225 | | --- | ---- | | 3.08 |
| 18 | | 9.0 | 29 | 220 | | | | | 3.10 |
| 19 | | 7.2 | 29 | 225 | | | | | 3.10 |
| 20 | | 5.5 | 28 | 230 | | | | | 3.18 |
| 21 | | 4.2 | 28 | 240 | | | | | 2.98 |
| 22 | | 3.65 | 28 | (270) | | | | | 2.88 |
| 23 | | 3.5 | 27 | <290 | | | | | 2.75 |

Time: 105.0°W
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds

Table 17

Bogota, Colombia (4.5°N, 74.2°W) November 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 9.7 | 27 | 210 | | | | 1.7 | 3.20 |
| 01 | | 7.9 | 25 | 215 | | | | 1.7 | 3.15 |
| 02 | | 5.5 | 25 | 215 | | | | 2.3 | 3.05 |
| 03 | | >4.05 | 24 | 235 | | | | 2.7 | 3.00 |
| 04 | | 3.75 | 24 | 270 | | | | 2.5 | 2.85 |
| 05 | | 4.15 | 24 | (280) | | | | 3.0 | 2.85 |
| 06 | | 7.3 | 25 | 255 | | <140 | 2.00 | 3.0 | 3.15 |
| 07 | | 10.6 | 27 | 240 | | 115 | 2.85 | 3.8 | 3.20 |
| 08 | | >12.55 | 28 | 230 | | 111 | 3.40 | 3.9 | 3.15 |
| 09 | | 13.2 | 28 | 215 | | 109 | 3.75 | 4.0 | 3.10 |
| 10 | | 13.4 | 28 | 215 | | 111 | 3.95 | 4.0 | 3.00 |
| 11 | --- | >13.2 | 28 | 215 | | <111 | 4.00 | 4.2 | 2.90 |
| 12 | --- | 13.2 | 29 | (220) | --- | 109 | 4.05 | 4.5 | 2.80 |
| 13 | --- | 13.3 | 29 | (220) | | 111 | 4.00 | 4.5 | 2.80 |
| 14 | --- | 13.5 | 27 | (225) | | 109 | 3.75 | 4.4 | 2.75 |
| 15 | --- | 13.95 | 28 | 235 | | 109 | 3.50 | 4.5 | 2.75 |
| 16 | | >14.4 | 27 | (245) | | 111 | ---- | 4.6 | 2.80 |
| 17 | | 14.8 | 27 | (260) | | 113 | 2.35 | 4.8 | 2.85 |
| 18 | | 15.0 | 25 | 250 | | --- | ---- | 4.5 | 2.90 |
| 19 | | >14.5 | 25 | 245 | | | | 4.0 | 3.00 |
| 20 | | (16.5) | 27 | 225 | | | | 3.0 | 3.05 |
| 21 | | >14.2 | 28 | 210 | | | | 2.6 | 3.05 |
| 22 | | >13.0 | 26 | 215 | | | | 2.6 | 3.10 |
| 23 | | >12.0 | 27 | 210 | | | | 1.8 | (3.20) |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 18

Talara, Peru (4.6°S, 81.3°W) November 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (12.3) | 8 | 250 | | | | 4.4 | (3.00) |
| 01 | | 10.5 | 12 | 235 | | | | 4.1 | 3.18 |
| 02 | | 8.8 | 19 | 230 | | | | 4.4 | 3.05 |
| 03 | | 7.95 | 26 | 230 | | | | 4.0 | 3.10 |
| 04 | | 7.4 | 29 | 235 | | | | 3.6 | 3.20 |
| 05 | | 5.9 | 29 | 235 | | | | 3.8 | 3.25 |
| 06 | | 6.3 | 29 | 270 | | --- | ---- | 3.8 | 3.10 |
| 07 | | 10.2 | 30 | 250 | | <121 | 2.65 | 4.5 | 3.10 |
| 08 | | 12.8 | 30 | 235 | | 113 | 3.25 | 4.1 | 3.08 |
| 09 | | 14.1 | 30 | 230 | | 111 | 3.70 | 4.3 | 2.95 |
| 10 | --- | 14.45 | 30 | 220 | | 109 | 3.95 | 5.8 | 2.75 |
| 11 | --- | 14.6 | 30 | 215 | | 109 | 4.10 | 5.0 | 2.55 |
| 12 | --- | 14.5 | 30 | 205 | --- | 109 | 4.15 | 5.5 | 2.40 |
| 13 | --- | 14.55 | 30 | 210 | --- | 109 | 4.10 | 4.6 | 2.35 |
| 14 | --- | 14.6 | 29 | 210 | | 109 | 3.95 | 6.0 | 2.30 |
| 15 | --- | 14.4 | 29 | (220) | | 109 | 3.75 | 6.2 | 2.35 |
| 16 | --- | 13.8 | 29 | <240 | | 109 | (3.30) | 7.0 | 2.35 |
| 17 | | >13.5 | 29 | (255) | | 111 | 2.80 | 6.6 | 2.35 |
| 18 | | >13.1 | 30 | <275 | | <149 | 2.00 | 4.6 | 2.45 |
| 19 | | >13.0 | 29 | 300 | | | | 3.4 | 2.45 |
| 20 | | >12.6 | 26 | 350 | | | | | 2.35 |
| 21 | | >12.1 | 14 | 300 | | | | | (2.55) |
| 22 | | (12.0) | 9 | 290 | | | | 3.0 | (2.55) |
| 23 | | (13.8) | 5 | 260 | | | | 4.2 | (2.70) |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 19

Thule, Greenland (76.6°N, 68.7°W) October 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (4.45) | 2 | 265 | | | | 4.0 | ---- |
| 01 | | (5.7) | 1 | <255 | | | | 4.2 | |
| 02 | | --- | 0 | 270 | | --- | ---- | 4.5 | |
| 03 | | --- | 0 | 260 | | --- | ---- | 4.2 | |
| 04 | | (7.8) | 1 | 270 | | --- | ---- | 4.6 | ---- |
| 05 | | (2.9) | 1 | 265 | | --- | ---- | 4.8 | |
| 06 | | (4.15) | 2 | 260 | | 119 | (1.55) | 5.0 | ---- |
| 07 | | (4.75) | 6 | 240 | | (138) | 1.70 | 5.0 | ---- |
| 08 | | (6.35) | 8 | 250 | | 119 | (1.80) | 5.0 | (3.05) |
| 09 | --- | (6.5) | 11 | 245 | --- | (130) | 1.95 | 4.3 | (2.95) |
| 10 | --- | (6.15) | 8 | 250 | --- | (119) | 2.05 | 4.5 | (3.05) |
| 11 | --- | (7.1) | 9 | 240 | --- | 119 | 2.05 | 4.8 | ---- |
| 12 | --- | (6.8) | 10 | 245 | --- | (121) | 2.10 | 3.6 | (3.02) |
| 13 | --- | 6.0 | 11 | 250 | --- | 120 | 2.00 | 4.5 | (3.00) |
| 14 | --- | (7.0) | 9 | 250 | --- | (130) | 1.85 | 4.7 | (2.95) |
| 15 | | (6.1) | 7 | 250 | | --- | ---- | 5.0 | (3.00) |
| 16 | | (6.05) | 6 | 250 | | --- | ---- | 4.9 | ---- |
| 17 | | (6.45) | 3 | 255 | | --- | ---- | 5.0 | ---- |
| 18 | | (10.6) | 1 | 255 | | | | 5.0 | ---- |
| 19 | | (7.6) | 5 | 255 | | | | 4.9 | ---- |
| 20 | | (6.4) | 2 | 260 | | | | 5.0 | ---- |
| 21 | | --- | 0 | 260 | | | | 4.7 | |
| 22 | | (5.5) | 2 | 250 | | | | 4.7 | ---- |
| 23 | | (4.65) | 4 | 265 | | | | 4.2 | ---- |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 20

Godhavn, Greenland (69.3°N, 53.5°W) October 1959*

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (3.55) | 4 | | | | | | ---- |
| 01 | | (3.65) | 10 | | | | | | (2.60) |
| 02 | | (3.7) | 7 | | | | | | ---- |
| 03 | | (3.1) | 5 | | | --- | ---- | | ---- |
| 04 | | (3.3) | 4 | | | | | | ---- |
| 05 | | (3.3) | 5 | | | | | | ---- |
| 06 | | (3.45) | 4 | | | | | 4.5 | ---- |
| 07 | | (3.4) | 2 | | | --- | ---- | | ---- |
| 08 | | (4.9) | 7 | | --- | 111 | ---- | 4.4 | ---- |
| 09 | | (5.7) | 6 | | --- | <114 | 2.20 | | ---- |
| 10 | | (7.1) | 8 | | --- | <117 | 2.50 | | (2.85) |
| 11 | | (8.0) | 7 | | --- | 112 | (2.55) | 3.1 | (2.85) |
| 12 | | (6.8) | 8 | | --- | 111 | 2.60 | | ---- |
| 13 | | (6.0) | 7 | | --- | 111 | 2.52 | 5.0 | ---- |
| 14 | | (6.5) | 7 | | --- | 111 | 2.50 | 4.4 | ---- |
| 15 | | (6.75) | 6 | | | 111 | ---- | 5.2 | ---- |
| 16 | | (6.15) | 10 | | | <122 | ---- | 4.4 | (2.82) |
| 17 | | (5.95) | 14 | | | --- | ---- | 4.0 | (2.80) |
| 18 | | (5.55) | 10 | | | | | 4.8 | (2.80) |
| 19 | | (4.8) | 7 | | | | | 3.8 | (2.62) |
| 20 | | (6.3) | 5 | | | | | 4.0 | ---- |
| 21 | | (4.5) | 7 | | | | | 3.0 | ---- |
| 22 | | (5.5) | 7 | | | | | | (2.60) |
| 23 | | (3.95) | 10 | | | | | | (2.75) |

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.
*Observations taken 1st through 18th only.

Table 21

Narsarssuak, Greenland (61.2°N, 45.4°W) October 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (4.2) | 20 | | | | | 4.4 | (2.60) |
| 01 | | (4.5) | 17 | | | | | 3.4 | (2.65) |
| 02 | | (4.4) | 15 | | | | | 3.7 | (2.70) |
| 03 | | (4.7) | 17 | | | | | 3.8 | (2.60) |
| 04 | | (5.2) | 15 | | | | | 3.6 | (2.60) |
| 05 | | (4.7) | 18 | | | | | 3.8 | (2.70) |
| 06 | | (4.5) | 23 | | | --- | ---- | 3.2 | (2.90) |
| 07 | | 5.25 | 28 | | | 105 | ---- | | 3.00 |
| 08 | | 6.3 | 31 | | --- | <125 | 2.60 | | 3.08 |
| 09 | | 7.0 | 31 | | --- | 115 | 2.70 | | 3.00 |
| 10 | | 7.9 | 31 | | (4.1) | 115 | 2.88 | | 2.90 |
| 11 | | 8.7 | 31 | | --- | 111 | 2.90 | | 2.90 |
| 12 | | 9.2 | 31 | | 4.2 | 111 | 2.95 | | 2.90 |
| 13 | | 9.4 | 28 | | 4.3 | 112 | 2.85 | | 2.90 |
| 14 | | (9.2) | 31 | | --- | 113 | 2.75 | | 2.95 |
| 15 | | (8.5) | 30 | | --- | (116) | 2.58 | | (2.95) |
| 16 | | (7.95) | 28 | | | 122 | 2.30 | | (2.95) |
| 17 | | (6.2) | 24 | | | --- | ---- | 3.4 | (2.90) |
| 18 | | (6.0) | 19 | | | --- | ---- | 3.3 | (2.90) |
| 19 | | (6.0) | 22 | | | | | 3.8 | (2.75) |
| 20 | | (5.35) | 20 | | | | | 4.6 | (2.60) |
| 21 | | (5.0) | 23 | | | | | 5.1 | (2.60) |
| 22 | | (4.9) | 20 | | | | | 4.6 | (2.70) |
| 23 | | (5.2) | 15 | | | | | 5.1 | (2.65) |

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 22

Boulder, Colorado (40.0°N, 105.3°W) October 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 4.4 | 25 | <300 | | | | | 2.65 |
| 01 | | 4.25 | 24 | 290 | | | | | 2.70 |
| 02 | | 4.05 | 24 | 285 | | | | | 2.65 |
| 03 | | 4.1 | 24 | 290 | | | | | 2.62 |
| 04 | | 4.0 | 23 | <290 | | | | | 2.65 |
| 05 | | 4.05 | 24 | 270 | | | | | 2.75 |
| 06 | | 4.85 | 22 | 260 | | <118 | 2.00 | | 2.92 |
| 07 | | 7.8 | 23 | 240 | | 115 | 2.25 | | 3.20 |
| 08 | --- | 9.5 | 23 | 230 | | 112 | 2.85 | | 3.20 |
| 09 | (235) | 10.5 | 22 | 215 | | 107 | 3.10 | | 3.12 |
| 10 | --- | 10.8 | 25 | 205 | --- | 105 | 3.25 | | 3.00 |
| 11 | (270) | 11.4 | 24 | 205 | --- | 105 | 3.40 | | 2.98 |
| 12 | --- | 12.0 | 24 | 215 | --- | 105 | 3.40 | | 2.95 |
| 13 | --- | 11.6 | 23 | 220 | --- | 104 | 3.42 | | 2.95 |
| 14 | | 11.25 | 24 | 230 | | 111 | 3.25 | | 2.90 |
| 15 | | 11.4 | 25 | 230 | | 111 | 2.95 | | 2.95 |
| 16 | | 11.2 | 29 | 235 | | 115 | 2.62 | | 3.00 |
| 17 | | 10.6 | 29 | 225 | | <125 | 2.00 | | 3.05 |
| 18 | | 9.3 | 29 | 220 | | | | | 3.00 |
| 19 | | 7.55 | 28 | 225 | | | | | 3.00 |
| 20 | | 6.3 | 26 | 230 | | | | | 3.00 |
| 21 | | 4.9 | 27 | <245 | | | | | 2.90 |
| 22 | | 4.5 | 26 | 275 | | | | | 2.78 |
| 23 | | 4.35 | 26 | 280 | | | | | 2.70 |

Time: 105.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 23

Grand Bahama I. (26.6°N, 78.2°W) October 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.0 | 28 | 280 | | | | | 2.85 |
| 01 | | 6.0 | 28 | 275 | | | | | 2.80 |
| 02 | | 5.8 | 28 | 265 | | | | | 2.90 |
| 03 | | 5.3 | 28 | 255 | | | | | 2.95 |
| 04 | | 4.8 | 27 | 250 | | | | | 2.85 |
| 05 | | 4.4 | 27 | 285 | | | | | 2.75 |
| 06 | | 5.1 | 26 | 280 | | --- | ---- | | 2.85 |
| 07 | | 8.5 | 28 | 240 | | <121 | 2.50 | | 3.20 |
| 08 | | 10.3 | 26 | 235 | | 111 | 3.00 | | 3.15 |
| 09 | | 11.5 | 23 | 225 | | 109 | 3.42 | | 3.12 |
| 10 | --- | 12.3 | 25 | 220 | | 108 | 3.60 | | 3.05 |
| 11 | --- | 12.6 | 27 | 220 | | 107 | 3.75 | | 3.00 |
| 12 | --- | 12.3 | 26 | 215 | --- | 109 | 3.80 | | 2.95 |
| 13 | --- | 12.35 | 26 | 220 | --- | 107 | 3.80 | | 2.88 |
| 14 | --- | 12.8 | 27 | 235 | | 109 | 3.65 | | 2.90 |
| 15 | --- | (12.5) | 28 | 235 | | 110 | 3.40 | 3.4 | (2.95) |
| 16 | | (12.0) | 29 | <240 | | 112 | 3.00 | 3.2 | 2.98 |
| 17 | | (11.3) | 29 | 235 | | 120 | 2.40 | 2.6 | (2.95) |
| 18 | | >9.0 | 29 | 220 | | | | 1.8 | ---- |
| 19 | | 8.4 | 27 | 215 | | | | | (3.00) |
| 20 | | 7.15 | 28 | 240 | | | | | 2.90 |
| 21 | | 6.9 | 27 | 260 | | | | | 2.85 |
| 22 | | 6.5 | 28 | 260 | | | | | 2.85 |
| 23 | | 6.1 | 28 | 275 | | | | | 2.90 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 24

Concepcion, Chile (36.6°S, 73.0°W) October 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 10.0 | 31 | 295 | | | | | 2.75 |
| 01 | | 9.8 | 31 | 280 | | | | | 2.85 |
| 02 | | 9.8 | 31 | 245 | | | | | 2.95 |
| 03 | | 7.6 | 31 | 215 | | | | | 2.90 |
| 04 | | 7.0 | 31 | 250 | | | | | 2.55 |
| 05 | | 7.55 | 30 | 280 | | <159 | 1.70 | | 2.60 |
| 06 | | 9.25 | 30 | 235 | | 111 | 2.50 | 2.5 | 3.00 |
| 07 | | 11.2 | 31 | 230 | | 109 | 3.05 | 3.3 | 3.05 |
| 08 | | 11.8 | 31 | 225 | | 105 | 3.50 | 3.7 | 2.95 |
| 09 | | 12.4 | 31 | 220 | | 105 | 3.65 | 4.0 | 2.90 |
| 10 | --- | 13.1 | 31 | (215) | | 109 | (3.82) | 4.2 | 2.85 |
| 11 | --- | 14.0 | 31 | (215) | | 109 | (3.95) | 4.5 | 2.85 |
| 12 | --- | 14.4 | 31 | 210 | | 109 | 4.00 | 4.4 | 2.85 |
| 13 | --- | 14.4 | 31 | 210 | | 108 | (3.95) | 4.2 | 2.80 |
| 14 | (310) | 14.6 | 31 | 215 | | 107 | 3.80 | 4.0 | 2.85 |
| 15 | --- | 14.0 | 30 | 225 | | 107 | 3.50 | | 2.85 |
| 16 | | 14.05 | 30 | 230 | | 109 | 3.10 | | 2.85 |
| 17 | | 13.6 | 31 | 250 | | 111 | 2.55 | 2.9 | 2.90 |
| 18 | | 13.5 | 31 | 265 | | (135) | 2.00 | 2.2 | 2.92 |
| 19 | | 12.2 | 31 | 270 | | | | | 2.85 |
| 20 | | (11.1) | 31 | 280 | | | | | (2.70) |
| 21 | | 10.75 | 30 | 300 | | | | | 2.65 |
| 22 | | 10.25 | 30 | 300 | | | | | 2.70 |
| 23 | | 10.1 | 31 | 295 | | | | | 2.80 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 25

Wakkanai, Japan (45.4°N, 141.7°E) June 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 0.0 | 27 | 305 | | | | 2.7 | 2.60 |
| 01 | | 0.0 | 27 | 300 | | | | 3.1 | 2.55 |
| 02 | | 7.5 | 27 | 300 | | | | 3.1 | 2.65 |
| 03 | | 7.3 | 27 | 300 | | | | 3.0 | 2.55 |
| 04 | (380) | 7.4 | 28 | 290 | --- | | 1.65 | 3.2 | 2.60 |
| 05 | (380) | 0.0 | 28 | 260 | 4.0 | | 2.50 | 3.5 | 2.65 |
| 06 | 360 | 8.4 | 27 | 250 | (4.4) | | 3.00 | 5.6 | 2.65 |
| 07 | 360 | 8.2 | 26 | 250 | 4.0 | | 3.40 | 6.0 | 2.65 |
| 08 | 400 | 8.2 | 25 | 260 | 5.2 | | 3.55 | 6.0 | 2.60 |
| 09 | 420 | 7.6 | 24 | 245 | 5.5 | | 3.75 | 6.5 | 2.55 |
| 10 | 425 | 7.6 | 22 | 240 | 5.5 | | 3.80 | 6.0 | 2.60 |
| 11 | 450 | 7.3 | 23 | 240 | 5.6 | | 3.90 | 5.7 | 2.55 |
| 12 | 450 | 7.7 | 23 | 235 | 5.6 | | 3.90 | 5.5 | 2.55 |
| 13 | 440 | 7.7 | 24 | 240 | 5.6 | | 3.75 | 4.5 | 2.60 |
| 14 | 430 | 7.7 | 24 | 245 | 5.6 | | 3.60 | | 2.60 |
| 15 | 415 | 7.6 | 26 | 240 | 5.4 | | 3.60 | 4.8 | 2.60 |
| 16 | 395 | 7.6 | 27 | 250 | 5.2 | | 3.40 | 4.7 | 2.65 |
| 17 | (380) | 7.5 | 27 | 255 | --- | | 3.05 | 6.0 | 2.65 |
| 18 | --- | 7.6 | 27 | 270 | | | 2.55 | 5.1 | 2.75 |
| 19 | | 7.0 | 28 | 290 | | | ---- | 4.9 | 2.70 |
| 20 | | 8.0 | 27 | 295 | | | | 5.0 | 2.60 |
| 21 | | 8.1 | 24 | 305 | | | | 4.9 | 2.55 |
| 22 | | 8.3 | 25 | 305 | | | | 4.2 | 2.60 |
| 23 | | 8.3 | 25 | 300 | | | | 3.2 | 2.60 |

Time: 135.0°E.
Sweep: 1.0 Mc to 20.7 Mc in 1 minute.

Table 26

Akita, Japan (39.7°N, 140.1°E) June 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 8.9 | 25 | 320 | | | | 5.6 | 2.55 |
| 01 | | 8.6 | 25 | 305 | | | | 4.1 | 2.60 |
| 02 | | 8.2 | 26 | 300 | | | | 2.9 | 2.60 |
| 03 | | 7.8 | 27 | 300 | | | | 3.6 | 2.65 |
| 04 | | 7.8 | 30 | 300 | | | | 3.2 | 2.60 |
| 05 | (355) | 8.4 | 30 | 260 | 3.7 | | 2.20 | 3.5 | 2.60 |
| 06 | 350 | 9.0 | 30 | 250 | 4.5 | | 2.95 | 4.2 | 2.70 |
| 07 | 330 | 9.2 | 30 | 250 | (5.0) | | 3.45 | 5.7 | 2.70 |
| 08 | 350 | 9.2 | 29 | 250 | 5.4 | | 3.70 | 7.5 | 2.65 |
| 09 | 400 | 8.8 | 27 | (245) | 5.7 | | 3.90 | 7.8 | 2.60 |
| 10 | 410 | 8.8 | 27 | (245) | 5.8 | | 3.95 | 7.4 | 2.55 |
| 11 | 425 | 8.8 | 26 | 245 | 5.8 | | 4.00 | 7.3 | 2.55 |
| 12 | 410 | 8.7 | 25 | 230 | 5.8 | | (4.05) | 7.5 | 2.55 |
| 13 | 415 | 8.8 | 27 | 240 | 5.8 | | 4.00 | 6.2 | 2.60 |
| 14 | 405 | 8.9 | 29 | 240 | 5.6 | | 3.90 | 6.0 | 2.60 |
| 15 | 390 | 8.7 | 29 | 245 | 5.5 | | 3.70 | 6.4 | 2.65 |
| 16 | 380 | 8.5 | 30 | 250 | 5.3 | | 3.50 | 5.8 | 2.70 |
| 17 | 345 | 8.4 | 30 | 250 | 4.9 | | 3.05 | 6.2 | 2.70 |
| 18 | 325 | 8.5 | 30 | 275 | --- | | 2.45 | 6.0 | 2.75 |
| 19 | | 8.4 | 30 | 295 | | | | 6.0 | 2.70 |
| 20 | | 8.3 | 30 | 300 | | | | 5.3 | 2.60 |
| 21 | | 8.6 | 29 | 315 | | | | 4.5 | 2.50 |
| 22 | | 8.0 | 27 | 320 | | | | 5.6 | 2.50 |
| 23 | | 8.9 | 26 | 320 | | | | 4.8 | 2.50 |

Time: 135.0°E.
Sweep: 1.6 Mc to 20.0 Mc in 20 seconds.

Table 27

Tokyo, Japan (35.7°N, 139.5°E) June 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (9.3) | 25 | 345 | | | | 5.7 | (2.55) |
| 01 | | 9.0 | 25 | 305 | | | | 4.5 | 2.60 |
| 02 | | (8.7) | 26 | 300 | | | | 4.0 | (2.60) |
| 03 | | (8.2) | 27 | 300 | | | | 3.4 | (2.60) |
| 04 | | 8.0 | 28 | 300 | | | | 2.3 | 2.55 |
| 05 | (375) | 8.6 | 29 | 260 | | | 2.30 | 2.4 | 2.65 |
| 06 | 340 | 9.1 | 30 | 250 | --- | | 2.90 | 3.0 | 2.65 |
| 07 | 360 | 9.4 | 30 | 250 | --- | | (3.35) | 5.0 | 2.65 |
| 08 | 350 | 9.2 | 20 | 250 | --- | | 3.70 | 5.6 | 2.65 |
| 09 | 410 | 9.0 | 26 | (250) | --- | | 3.90 | 8.7 | 2.55 |
| 10 | 405 | 9.0 | 26 | (250) | (5.8) | | 4.00 | 7.1 | 2.55 |
| 11 | 410 | 9.6 | 26 | (235) | (5.9) | | (4.05) | 6.7 | 2.55 |
| 12 | 415 | 9.0 | 26 | (235) | (5.9) | | (4.10) | 6.5 | 2.50 |
| 13 | 400 | 9.7 | 27 | 240 | (5.8) | | (4.00) | 6.5 | 2.55 |
| 14 | 400 | 9.6 | 28 | 250 | (5.7) | | (4.00) | 6.7 | 2.60 |
| 15 | 380 | 9.7 | 29 | 250 | --- | | (3.00) | 7.0 | 2.60 |
| 16 | 360 | 9.6 | 29 | 250 | --- | | (3.50) | 5.4 | 2.65 |
| 17 | 350 | 9.6 | 30 | 260 | | | 3.10 | 7.1 | 2.70 |
| 18 | (310) | 9.2 | 30 | 290 | | | 2.50 | 5.7 | 2.75 |
| 19 | --- | 8.8 | 30 | 300 | | | | 5.0 | 2.70 |
| 20 | | 0.6 | 30 | 340 | | | | 6.4 | 2.55 |
| 21 | | (0.6) | 30 | 350 | | | | 5.2 | (2.45) |
| 22 | | 9.0 | 30 | 350 | | | | 5.0 | 2.45 |
| 23 | | (9.1) | 28 | 350 | | | | 7.0 | 2.50 |

Time: 135.0°E.
Sweep: 1.0 Mc to 20.0 Mc in 20 seconds.

Table 28

Yamagawa, Japan (31.2°N, 130.6°E) June 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 9.4 | 27 | 325 | | | | 5.2 | 2.60 |
| 01 | | 9.6 | 25 | 300 | | | | 5.1 | 2.70 |
| 02 | | 8.9 | 27 | 300 | | | | 4.6 | 2.70 |
| 03 | | 8.6 | 26 | 290 | | | | 3.6 | 2.70 |
| 04 | | 8.0 | 25 | 290 | | | | 3.2 | 2.70 |
| 05 | | 7.0 | 25 | 300 | | | | 3.2 | 2.60 |
| 06 | | 8.6 | 30 | 250 | | | 2.35 | 3.4 | 2.80 |
| 07 | --- | 9.1 | 30 | 250 | --- | | 3.05 | 4.4 | 2.65 |
| 08 | --- | 8.9 | 30 | 245 | --- | | 3.50 | 5.5 | 2.60 |
| 09 | --- | 8.7 | 29 | 250 | --- | | 3.75 | 7.0 | 2.65 |
| 10 | (375) | 9.0 | 28 | 250 | 6.2 | | 3.95 | 7.1 | 2.60 |
| 11 | 405 | 9.5 | 29 | 250 | 6.3 | | 4.10 | 6.6 | 2.50 |
| 12 | 400 | 10.0 | 30 | 250 | 6.2 | | 4.15 | 6.3 | 2.50 |
| 13 | 405 | 10.4 | 30 | 230 | 6.2 | | 4.10 | 6.0 | 2.50 |
| 14 | 400 | 10.8 | 28 | 250 | 5.9 | | 4.00 | 6.8 | 2.55 |
| 15 | 390 | 10.8 | 27 | 250 | 5.9 | | 3.90 | 5.0 | 2.55 |
| 16 | 360 | 11.0 | 27 | 250 | 5.7 | | 3.70 | 6.0 | 2.65 |
| 17 | 350 | 10.6 | 30 | 260 | 5.4 | | 3.35 | 6.2 | 2.65 |
| 18 | 335 | 10.2 | 30 | 290 | --- | | 2.80 | 6.0 | 2.75 |
| 19 | | 9.7 | 30 | 290 | | | ---- | 6.0 | 2.70 |
| 20 | | 9.0 | 30 | 300 | | | | 5.4 | 2.60 |
| 21 | | 9.0 | 30 | 350 | | | | 4.8 | 2.45 |
| 22 | | 9.2 | 30 | 350 | | | | 4.1 | 2.45 |
| 23 | | 9.3 | 29 | 340 | | | | 4.4 | 2.55 |

Time: 135.0°E.
Sweep: 1.0 Mc to 20.3 Mc in 1 minute.

Table 29

Falkland Is. (51.7°S, 57.8°W) June 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 3.2 | 28 | 325 | | | | | 2.40 |
| 01 | | 3.2 | 27 | 345 | | | | | 2.45 |
| 02 | | 3.2 | 28 | 350 | | | | | 2.35 |
| 03 | | 3.3 | 28 | 350 | | | | | 2.40 |
| 04 | | 3.2 | 28 | 340 | | | | | 2.35 |
| 05 | | 3.0 | 28 | 300 | | | | | 2.70 |
| 06 | | 2.0 | 28 | 260 | | | --- | | 2.75 |
| 07 | | 3.5 | 27 | 260 | | 160 | 1.3 | | ---- |
| 08 | | 6.6 | 28 | 225 | | 150 | 1.9 | | 3.20 |
| 09 | | 8.5 | 29 | 215 | | 130 | 2.4 | 2.6 | 3.35 |
| 10 | | 10.4 | 29 | 225 | | 115 | 2.6 | 3.0 | 3.35 |
| 11 | | 11.1 | 29 | 230 | | 115 | 2.8 | 3.2 | 3.25 |
| 12 | | 10.8 | 30 | 220 | | 115 | 2.9 | 3.0 | 3.30 |
| 13 | | 9.9 | 30 | 225 | | 115 | 2.8 | 2.9 | 3.30 |
| 14 | | 9.2 | 30 | 230 | | 115 | 2.6 | 2.7 | 3.30 |
| 15 | | 8.8 | 30 | 225 | | 130 | 2.3 | 2.3 | 3.35 |
| 16 | | 6.8 | 30 | 205 | | 155 | 1.7 | 2.6 | (3.30) |
| 17 | | 5.3 | 27 | 205 | | | --- | | (3.15) |
| 18 | | 4.4 | 28 | 235 | | | --- | <1.3 | 3.15 |
| 19 | | 3.6 | 29 | 230 | | | | <1.4 | ---- |
| 20 | | 3.2 | 29 | 250 | | | | <1.4 | (3.00) |
| 21 | | 3.0 | 29 | 250 | | | | <1.4 | (3.00) |
| 22 | | 3.0 | 28 | 300 | | | | <1.6 | 2.45 |
| 23 | | 3.2 | 28 | 305 | | | | <1.4 | 2.45 |

Time: 60.0°W
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation

Table 30

Tromso, Norway (69.7°N, 19.0°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (6.1) | 9 | 370 | | --- | ---- | 3.2 | 2.40 |
| 01 | --- | 5.7 | 13 | 350 | --- | --- | ---- | 4.0 | 2.45 |
| 02 | --- | 5.9 | 11 | 310 | --- | --- | ---- | 3.7 | 2.40 |
| 03 | --- | 6.1 | 11 | 300 | --- | --- | 2.20 | 3.9 | 2.40 |
| 04 | (410) | 6.2 | 16 | 265 | --- | 110 | 2.45 | 2.9 | 2.45 |
| 05 | (490) | 6.2 | 21 | 260 | 4.0 | 110 | 2.80 | | 2.45 |
| 06 | (415) | 6.5 | 19 | 255 | 4.6 | 110 | 3.00 | | 2.45 |
| 07 | 480 | 7.0 | 19 | 245 | 4.6 | 105 | 3.15 | | 2.45 |
| 08 | 470 | 7.3 | 19 | 240 | 4.8 | 115 | 3.25 | | 2.50 |
| 09 | 460 | 7.4 | 22 | 235 | 5.0 | 110 | 3.35 | | 2.50 |
| 10 | 460 | 7.5 | 25 | 235 | 5.1 | 110 | 3.50 | | 2.50 |
| 11 | 455 | 7.6 | 24 | 225 | 5.2 | 110 | 3.55 | | 2.55 |
| 12 | 470 | 7.6 | 25 | 225 | 5.2 | 110 | 3.60 | | 2.40 |
| 13 | 450 | 7.2 | 24 | 235 | 5.2 | 110 | 3.60 | | 2.55 |
| 14 | (470) | 7.2 | 24 | 230 | 5.0 | 110 | 3.55 | | 2.55 |
| 15 | (475) | 7.2 | 25 | 240 | --- | 110 | 3.25 | | 2.55 |
| 16 | (520) | 7.0 | 25 | 250 | --- | 110 | 3.20 | | 2.55 |
| 17 | (345) | 7.0 | 24 | 260 | --- | 110 | 3.20 | | 2.55 |
| 18 | --- | 6.6 | 24 | 280 | --- | 110 | 3.20 | | 2.55 |
| 19 | --- | 6.4 | 23 | 310 | --- | 110 | 3.15 | | 2.70 |
| 20 | --- | 6.1 | 19 | 315 | --- | 110 | 2.90 | 3.7 | 2.55 |
| 21 | --- | 6.0 | 15 | 320 | --- | --- | 2.40 | 3.6 | 2.55 |
| 22 | --- | 6.4 | 12 | 330 | --- | --- | ---- | 3.6 | 2.55 |
| 23 | | 6.1 | 10 | 340 | | --- | (2.50) | 4.0 | 2.55 |

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 31

Kiruna, Sweden (67.8°N, 20.3°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.6 | 15 | 320 | | | | 3.5 | 2.5 |
| 01 | | 6.4 | 13 | 310 | | --- | --- | 3.2 | 2.6 |
| 02 | --- | 5.8 | 17 | 300 | --- | --- | --- | 3.6 | 2.4 |
| 03 | --- | 6.0 | 15 | 290 | --- | --- | 1.7 | 2.0 | 2.6 |
| 04 | (455) | 5.0 | 19 | 260 | 3.7 | 110 | 2.1 | | 2.45 |
| 05 | 440 | 6.0 | 23 | 250 | 4.2 | 110 | 2.5 | | 2.5 |
| 06 | 440 | 6.2 | 22 | <250 | 4.5 | 110 | 2.8 | | 2.6 |
| 07 | 400 | 7.0 | 22 | 240 | 4.8 | 110 | 3.0 | | 2.6 |
| 08 | 445 | 7.2 | 25 | 235 | 5.0 | 105 | 3.2 | | 2.6 |
| 09 | 410 | 7.4 | 25 | 230 | 5.2 | 105 | 3.3 | | 2.6 |
| 10 | 435 | 7.5 | 25 | 225 | 5.2 | 105 | 3.4 | | 2.5 |
| 11 | 430 | 7.3 | 27 | 225 | 5.2 | 105 | 3.4 | | 2.5 |
| 12 | 410 | 7.5 | 24 | 230 | 5.3 | 105 | 3.4 | | 2.6 |
| 13 | 440 | 7.2 | 25 | 230 | 5.3 | 105 | 3.4 | | 2.6 |
| 14 | 440 | 7.2 | 24 | 230 | 5.1 | 105 | 3.4 | | 2.6 |
| 15 | 420 | 7.4 | 24 | 240 | 5.0 | 105 | 3.2 | | 2.6 |
| 16 | (395) | 7.2 | 25 | 245 | 4.8 | 110 | 3.0 | | 2.6 |
| 17 | (470) | 7.0 | 26 | 250 | 4.5 | 110 | 3.0 | | 2.7 |
| 18 | --- | 6.7 | 26 | 265 | --- | 110 | 2.6 | | 2.65 |
| 19 | --- | 6.7 | 25 | 280 | --- | 110 | 2.2 | 3.2 | 2.75 |
| 20 | | 6.4 | 25 | 290 | | --- | 1.9 | 3.0 | 2.6 |
| 21 | | 6.2 | 24 | 300 | | --- | 1.6 | 3.1 | 2.6 |
| 22 | | 6.2 | 19 | 335 | | --- | --- | 3.0 | 2.6 |
| 23 | | 6.3 | 17 | 310 | | --- | --- | 3.0 | 2.6 |

Time: 15.0°E.
Sweep: 0.8 Mc to 14.0 Mc in 30 seconds.

Table 32

Sodankyla, Finland (67.4°N, 26.6°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (7.6) | 6 | 310 | | | | 3.7 | (2.75) |
| 01 | | 7.0 | 10 | 350 | | --- | ---- | 4.2 | 2.60 |
| 02 | | (7.7) | 7 | 380 | | --- | E | 4.2 | (2.65) |
| 03 | | (7.7) | 9 | 330 | | --- | 2.20 | 4.0 | (2.60) |
| 04 | | 7.0 | 13 | 295 | | 125 | 2.20 | 4.2 | 2.55 |
| 05 | | 6.6 | 16 | 270 | --- | 110 | 2.50 | 4.2 | 2.60 |
| 06 | | 6.6 | 20 | 250 | --- | 115 | 2.80 | 4.2 | 2.55 |
| 07 | | 7.6 | 21 | 240 | --- | 115 | 3.10 | 4.5 | 2.55 |
| 08 | | 7.8 | 22 | 240 | 4.9 | 110 | 3.20 | 4.3 | 2.55 |
| 09 | | 7.8 | 24 | 230 | 4.9 | 110 | 3.40 | 4.4 | 2.55 |
| 10 | | 7.7 | 25 | 230 | 5.0 | 110 | 3.50 | 4.4 | 2.55 |
| 11 | | 7.5 | 26 | 220 | --- | 110 | 3.60 | 4.5 | 2.55 |
| 12 | | 7.6 | 26 | 225 | --- | 110 | 3.60 | 4.6 | 2.55 |
| 13 | | 7.8 | 26 | 230 | --- | 110 | 3.60 | 4.7 | 2.50 |
| 14 | | 7.6 | 26 | 230 | --- | 110 | 3.55 | 4.5 | 2.60 |
| 15 | | 7.4 | 26 | 240 | --- | 110 | 3.45 | 4.4 | 2.60 |
| 16 | | 7.6 | 24 | 235 | | 115 | 3.30 | 4.4 | 2.65 |
| 17 | | 7.4 | 26 | 250 | | 110 | 3.15 | 4.3 | 2.70 |
| 18 | | 7.6 | 24 | 250 | | 110 | 2.95 | 4.2 | 2.75 |
| 19 | | 7.2 | 24 | 265 | | 115 | 2.70 | 4.2 | 2.70 |
| 20 | | 6.9 | 24 | 280 | | 115 | 2.60 | 3.9 | 2.75 |
| 21 | | 7.4 | 10 | 310 | | 120 | 2.10 | 3.7 | 2.75 |
| 22 | | 7.3 | 17 | 310 | | --- | E | 3.4 | 2.60 |
| 23 | | 7.6 | 10 | 310 | | --- | E | 3.9 | 2.70 |

Time: 30.0°E.
Sweep: 1.4 Mc to 22.0 mc in 8 minutes, automatic operation.

Table 33

Lulea, Sweden (65.6°N, 22.1°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (5.6) | 20 | 350 | | --- | --- | 3.1 | 2.70 |
| 01 | --- | (5.5) | 21 | 335 | | --- | --- | >2.5 | 2.55 |
| 02 | --- | (5.5) | 24 | 315 | --- | --- | 1.8 | | 2.40 |
| 03 | (425) | 5.6 | 24 | 280 | --- | <130 | 2.0 | | 2.50 |
| 04 | 435 | 5.7 | 24 | 270 | 3.8 | 120 | 2.3 | | 2.50 |
| 05 | 460 | 6.1 | 24 | 250 | 4.3 | 115 | 2.7 | | 2.50 |
| 06 | 410 | 6.6 | 24 | 250 | 4.7 | 110 | 3.0 | | 2.50 |
| 07 | 465 | 6.5 | 25 | 240 | 4.0 | 110 | 3.1 | | 2.50 |
| 08 | 440 | 7.1 | 23 | 230 | 5.0 | 110 | 3.3 | | 2.55 |
| 09 | 430 | 7.6 | 24 | 230 | 5.2 | 110 | 3.4 | | 2.70 |
| 10 | 430 | 7.6 | 22 | 230 | 5.4 | 110 | 3.6 | | 2.60 |
| 11 | 430 | 7.7 | 23 | 230 | 5.4 | 110 | 3.7 | | 2.70 |
| 12 | 430 | 8.0 | 22 | 225 | 5.4 | 110 | 3.6 | | 2.70 |
| 13 | 420 | 7.8 | 21 | 230 | 5.6 | 110 | 3.6 | | 2.60 |
| 14 | 410 | 7.8 | 20 | 230 | 5.4 | 110 | 3.5 | | 2.70 |
| 15 | (430) | 7.6 | 20 | 230 | 5.1 | 110 | 3.3 | | 2.80 |
| 16 | (430) | 7.6 | 22 | 240 | 4.9 | 110 | 3.2 | | 2.80 |
| 17 | --- | 7.6 | 22 | 260 | --- | 110 | 2.9 | | 2.80 |
| 18 | --- | 7.2 | 23 | 260 | --- | 115 | 2.7 | | 2.80 |
| 19 | --- | 7.0 | 23 | 260 | --- | 130 | 2.4 | 2.4 | 2.80 |
| 20 | | 6.4 | 25 | 290 | | --- | 2.1 | 2.6 | 2.70 |
| 21 | | 6.4 | 25 | 285 | | --- | --- | 1.9 | 2.60 |
| 22 | | 6.3 | 21 | 320 | | --- | 1.8 | 2.8 | 2.50 |
| 23 | | (6.0) | 22 | 315 | | --- | --- | 3.0 | 2.45 |

Time: 15.0°E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 34

Lycksele, Sweden (64.6°N, 18.8°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.0 | 25 | 335 | | --- | ---- | 3.0 | 2.40 |
| 01 | | 5.7 | 27 | 345 | | --- | 1.20 | 2.6 | 2.40 |
| 02 | --- | 5.5 | 27 | 330 | ---- | 130 | 1.30 | 2.7 | 2.40 |
| 03 | 410 | 5.5 | 27 | 300 | 3.30 | 125 | 1.80 | 2.5 | 2.40 |
| 04 | 400 | 5.7 | 27 | 275 | 3.60 | 120 | 2.10 | 3.1 | 2.40 |
| 05 | 365 | 6.0 | 26 | 250 | 4.20 | 115 | 2.50 | 3.0 | 2.50 |
| 06 | 405 | 6.5 | 26 | 250 | 4.60 | 110 | 2.80 | | 2.50 |
| 07 | 380 | 6.8 | 24 | 245 | 4.85 | 105 | 3.05 | 3.5 | 2.50 |
| 08 | 370 | 7.2 | 26 | 235 | 5.00 | 105 | 3.20 | | 2.50 |
| 09 | 390 | 7.6 | 24 | 230 | 5.40 | 105 | 3.40 | 3.6 | 2.55 |
| 10 | 380 | 7.6 | 24 | 235 | 5.40 | 105 | 3.50 | | 2.60 |
| 11 | 400 | 7.6 | 26 | 225 | 5.50 | 105 | 3.50 | 4.3 | 2.50 |
| 12 | 415 | 7.6 | 26 | 225 | 5.50 | 105 | 3.50 | | 2.55 |
| 13 | 400 | 7.8 | 26 | 225 | 5.40 | 105 | 3.50 | | 2.50 |
| 14 | 380 | 7.7 | 24 | 235 | 5.30 | 105 | 3.45 | | 2.60 |
| 15 | 375 | 7.5 | 25 | 235 | 5.25 | 105 | 3.30 | | 2.60 |
| 16 | 355 | 7.7 | 26 | 240 | 5.05 | 105 | 3.20 | | 2.60 |
| 17 | 330 | 7.6 | 29 | 245 | 4.80 | 110 | 2.90 | | 2.60 |
| 18 | 300 | 7.5 | 27 | 250 | 4.50 | 110 | 2.50 | 3.2 | 2.60 |
| 19 | --- | 7.3 | 28 | 255 | (4.00) | 115 | 2.15 | 3.0 | 2.70 |
| 20 | --- | 6.8 | 29 | 280 | ---- | 120 | 1.80 | 2.7 | 2.70 |
| 21 | | 6.6 | 28 | 290 | | 120 | 1.50 | 2.4 | 2.70 |
| 22 | | 5.9 | 28 | 310 | | --- | 1.20 | 2.6 | 2.60 |
| 23 | | 5.9 | 26 | 330 | | --- | ---- | 2.7 | 2.60 |

Time: 15.0°E.
Sweep: 0.33 Mc to 20.0 Mc in 6 minutes, automatic operation; occasionally 1.4 Mc to 16.0 Mc in 6 minutes, automatic operation.

Table 35

Nurmijarvi, Finland (60.5°N, 24.6°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 7.2 | 10 | | | | | | 2.60 |
| 01 | | (6.8) | 9 | | | | | | (2.60) |
| 02 | | 6.4 | 10 | | | | | | 2.60 |
| 03 | | 5.6 | 11 | | | | | | 2.55 |
| 04 | | 5.9 | 16 | | --- | | | | 2.70 |
| 05 | | 6.2 | 16 | | --- | | ---- | | 2.70 |
| 06 | | 6.3 | 25 | | 4.1 | | ---- | | 2.70 |
| 07 | | 7.0 | 25 | | 4.5 | | ---- | | 2.70 |
| 08 | | 7.6 | 27 | | 5.0 | | 3.20 | | 2.70 |
| 09 | | 7.7 | 24 | | 5.0 | | ---- | | 2.70 |
| 10 | | 8.0 | 27 | | 5.4 | | ---- | | 2.70 |
| 11 | | 8.4 | 29 | | 5.4 | | 3.70 | | 2.65 |
| 12 | | 8.1 | 29 | | 5.4 | | ---- | | 2.65 |
| 13 | | 8.4 | 28 | | 5.5 | | ---- | | 2.70 |
| 14 | | 8.3 | 31 | | 5.4 | | ---- | | 2.70 |
| 15 | | 8.2 | 30 | | 5.3 | | ---- | | 2.70 |
| 16 | | 8.2 | 30 | | 5.0 | | ---- | | 2.75 |
| 17 | | 8.2 | 30 | | --- | | ---- | | 2.75 |
| 18 | | 8.2 | 28 | | | | ---- | | 2.75 |
| 19 | | 8.3 | 27 | | | | | | 2.80 |
| 20 | | 8.0 | 27 | | | | | | 2.85 |
| 21 | | 8.2 | 24 | | | | | | 2.80 |
| 22 | | 8.0 | 15 | | | | | | 2.70 |
| 23 | | 7.2 | 10 | | | | | | 2.60 |

Time: 30.0°E
Sweep: 1.0 Mc to 25.0 Mc in 1 minute.

Table 36

Moscow, U.S.S.R. (55.5°N, 37.3°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.7 | 28 | 300 | | | ---- | <1.4 | 2.50 |
| 01 | | 6.3 | 30 | 305 | | | ---- | <1.3 | 2.50 |
| 02 | | 5.9 | 30 | 305 | | | E | <1.2 | 2.50 |
| 03 | 380 | 5.8 | 30 | 310 | (2.3) | | 1.35 | | 2.55 |
| 04 | 400 | 6.3 | 29 | 295 | 3.5 | | 2.00 | 2.0 | 2.60 |
| 05 | 390 | 6.8 | 29 | 250 | 4.0 | | 2.50 | 2.6 | 2.65 |
| 06 | 370 | 7.2 | 29 | 245 | 4.7 | | 2.90 | 3.2 | 2.65 |
| 07 | 360 | 8.2 | 29 | 235 | 5.0 | | 3.25 | 3.7 | 2.65 |
| 08 | 355 | 8.6 | 29 | 230 | 5.4 | | 3.50 | 3.8 | 2.65 |
| 09 | 360 | 9.0 | 30 | 235 | 5.6 | | 3.70 | 4.2 | 2.60 |
| 10 | 370 | 8.9 | 30 | 230 | 5.6 | | 3.80 | 4.0 | 2.60 |
| 11 | 360 | 9.2 | 30 | 220 | 5.9 | | 3.90 | 4.2 | 2.60 |
| 12 | 370 | 9.1 | 30 | 225 | 5.7 | | 3.90 | 4.0 | 2.60 |
| 13 | 380 | 8.9 | 30 | 230 | 6.0 | | 3.80 | 3.9 | 2.60 |
| 14 | 370 | 8.8 | 30 | 235 | 5.7 | | 3.65 | 3.9 | 2.65 |
| 15 | 355 | 8.6 | 30 | 240 | 5.6 | | 3.50 | 3.7 | 2.65 |
| 16 | 340 | 8.4 | 30 | 245 | 5.0 | | 3.20 | 3.4 | 2.70 |
| 17 | 325 | 8.5 | 30 | 250 | 4.6 | | 2.95 | 3.2 | 2.75 |
| 18 | 265 | 8.6 | 30 | 260 | | | 2.50 | 3.0 | 2.80 |
| 19 | | 8.6 | 29 | 270 | | | (2.00) | 2.7 | 2.80 |
| 20 | | 8.5 | 31 | 270 | | | 1.40 | 2.0 | 2.75 |
| 21 | | 8.0 | 29 | 270 | | | E | 1.9 | 2.65 |
| 22 | | 7.4 | 28 | 280 | | | ---- | <1.4 | 2.60 |
| 23 | | 7.0 | 28 | 290 | | | ---- | <1.4 | 2.50 |

Time: 30.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 37

Slough, England (51.5°N, 0.6°W) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 7.4 | 25 | 300 | | | | <1.3 | 2.50 |
| 01 | | 6.8 | 26 | 310 | | | | 1.4 | 2.40 |
| 02 | | 6.6 | 27 | 310 | | | | 1.3 | 2.40 |
| 03 | | 6.4 | 27 | 300 | | | | 1.3 | 2.50 |
| 04 | --- | 6.2 | 26 | 300 | | 115 | 1.50 | 1.7 | 2.55 |
| 05 | --- | 6.7 | 27 | 265 | --- | 110 | 2.20 | 2.5 | 2.70 |
| 06 | 425 | 7.0 | 27 | 250 | --- | 105 | 2.80 | 2.0 | 2.75 |
| 07 | 465 | 7.4 | 26 | 240 | 4.8 | 105 | 3.15 | 3.3 | 2.75 |
| 08 | 480 | 8.0 | 27 | 235 | 5.0 | 100 | 3.45 | 3.8 | 2.75 |
| 09 | 420 | 8.3 | 29 | 220 | 5.3 | 100 | 3.65 | 3.9 | 2.60 |
| 10 | 395 | 8.4 | 28 | 220 | 5.4 | 100 | 3.00 | 4.2 | 2.65 |
| 11 | 395 | 8.8 | 26 | 210 | 5.5 | 100 | 3.90 | 4.3 | 2.60 |
| 12 | 400 | 8.0 | 26 | 215 | 5.7 | 100 | 3.95 | 4.1 | 2.60 |
| 13 | 400 | 8.5 | 27 | 230 | 5.6 | 100 | 3.90 | 4.1 | 2.60 |
| 14 | 390 | 8.8 | 29 | 225 | 5.6 | 100 | 3.85 | | 2.65 |
| 15 | 380 | 8.7 | 29 | 240 | 5.5 | 105 | 3.70 | 3.8 | 2.70 |
| 16 | 360 | 8.8 | 28 | 235 | --- | 105 | 3.50 | 4.2 | 2.65 |
| 17 | 380 | 8.6 | 30 | 250 | --- | 105 | 3.20 | 3.6 | 2.70 |
| 18 | --- | 8.7 | 29 | 250 | --- | 110 | 2.70 | 3.0 | 2.75 |
| 19 | --- | 8.9 | 30 | 265 | | 120 | 2.10 | 2.5 | 2.00 |
| 20 | | 0.6 | 28 | 260 | | --- | <1.60 | 2.4 | 2.75 |
| 21 | | 0.2 | 20 | <260 | | --- | | 1.7 | 2.60 |
| 22 | | 7.9 | 27 | <270 | | | | <1.6 | 2.50 |
| 23 | | 7.8 | 26 | <300 | | | | <1.6 | 2.50 |

Time: 0.0°.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 38

Budapest, Hungary (47.4°N, 19.2°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 7.0 | 30 | 335 | | | | | |
| 01 | | 6.8 | 30 | 330 | | | | | |
| 02 | | >6.3 | 30 | 320 | | | | | |
| 03 | --- | 6.6 | 31 | 310 | --- | | | | |
| 04 | (400) | >7.0 | 31 | 270 | 3.0 | 140 | 2.5 | 3.2 | |
| 05 | 365 | 8.0 | 31 | 255 | 4.4 | 125 | 2.8 | 3.5 | |
| 06 | 365 | 8.4 | 30 | 250 | 5.0 | 120 | 3.2 | 3.6 | |
| 07 | 365 | 9.0 | 31 | 240 | 5.4 | 120 | 3.5 | 4.0 | |
| 08 | 400 | 9.2 | 31 | 245 | 5.6 | 115 | 3.6 | 4.3 | |
| 09 | 390 | 9.6 | 31 | 240 | 6.0 | 115 | 3.8 | 4.4 | |
| 10 | 375 | 9.8 | 31 | 230 | 5.9 | 115 | 3.7 | 4.2 | |
| 11 | 395 | 9.9 | 30 | 235 | 6.0 | 115 | 3.8 | | |
| 12 | 395 | 10.1 | 31 | 260 | 6.0 | 115 | 3.7 | | |
| 13 | 390 | 9.6 | 30 | 245 | 5.9 | 120 | 3.7 | | |
| 14 | 365 | 9.4 | 29 | 255 | 5.0 | 120 | 3.6 | 4.0 | |
| 15 | 355 | 9.2 | 30 | 260 | 5.6 | 120 | 3.4 | 4.2 | |
| 16 | --- | 9.0 | 29 | 265 | --- | 125 | 3.0 | 4.0 | |
| 17 | --- | (8.4) | 30 | 270 | --- | 135 | 2.5 | 3.7 | |
| 18 | | >7.3 | 29 | 285 | | --- | --- | 3.3 | |
| 19 | | >6.9 | 28 | 280 | | | | | |
| 20 | | >6.3 | 29 | 300 | | | | | |
| 21 | | >6.2 | 27 | 315 | | | | | |
| 22 | | (6.2) | 29 | 320 | | | | | |
| 23 | | >6.0 | 29 | 345 | | | | | |

Time: 0.0°.
Sweep: 1.0 Mc to 20.0 Mc in 35 seconds.

Table 39

Wakkanai, Japan (45.4°N, 141.7°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 0.2 | 25 | 300 | | | | | 2.55 |
| 01 | | 8.0 | 25 | 295 | | | | 2.4 | 2.60 |
| 02 | | 7.4 | 25 | 280 | | | | 2.4 | 2.55 |
| 03 | | 7.2 | 25 | 295 | | | | 1.0 | 2.55 |
| 04 | | 7.4 | 26 | 300 | | | 1.40 | 2.4 | 2.55 |
| 05 | --- | 0.2 | 26 | 260 | | | 2.40 | | 2.70 |
| 06 | --- | 0.4 | 26 | 250 | --- | | 2.95 | 3.2 | 2.75 |
| 07 | (360) | 8.3 | 23 | 255 | --- | | 3.35 | 4.2 | 2.75 |
| 08 | 385 | 8.3 | 22 | 250 | 5.5 | | 3.55 | 4.9 | 2.65 |
| 09 | 415 | 0.4 | 24 | 245 | 5.7 | | 3.75 | 5.6 | 2.65 |
| 10 | 400 | 8.5 | 24 | 245 | 5.0 | | 3.80 | 4.9 | 2.60 |
| 11 | 390 | 0.0 | 24 | 230 | 6.0 | | 3.90 | 4.4 | 2.60 |
| 12 | 395 | 9.1 | 25 | 240 | 5.9 | | 3.90 | 4.9 | 2.65 |
| 13 | 390 | 9.1 | 25 | 245 | 6.0 | | 3.75 | 4.1 | 2.60 |
| 14 | 375 | 9.3 | 25 | 250 | 5.7 | | 3.75 | 4.7 | 2.70 |
| 15 | 360 | 9.1 | 25 | 250 | 5.4 | | 3.55 | 4.4 | 2.70 |
| 16 | --- | 9.0 | 24 | 250 | --- | | 3.30 | 4.2 | 2.75 |
| 17 | | 9.0 | 25 | 260 | | | 2.90 | 3.8 | 2.80 |
| 18 | | 9.0 | 26 | 270 | | | 2.30 | 3.6 | 2.00 |
| 19 | | 9.0 | 24 | 270 | | | | 3.5 | 2.00 |
| 20 | | 8.4 | 24 | 265 | | | | 2.9 | 2.70 |
| 21 | | (8.4) | 24 | 205 | | | | 2.9 | (2.60) |
| 22 | | (0.5) | 25 | 305 | | | | 2.9 | (2.65) |
| 23 | | 8.3 | 26 | 300 | | | | 2.5 | 2.60 |

Time: 135.0°E.
Sweep: 1.0 Mc to 20.7 Mc in 1 minute.

Table 40

Rome, Italy (41.8°N, 12.5°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (8.6) | 25 | 320 | | | | 2.4 | (2.50) |
| 01 | | (8.3) | 29 | 310 | | | | 2.8 | (2.50) |
| 02 | | (8.2) | 29 | 320 | | | | 2.8 | (2.45) |
| 03 | | (7.5) | 29 | 310 | | | | 2.4 | (2.45) |
| 04 | | (7.3) | 30 | 300 | | | | | (2.50) |
| 05 | | 7.4 | 30 | 290 | | 150 | 1.8 | 2.6 | 2.70 |
| 06 | --- | 8.4 | 28 | 260 | --- | 120 | 2.5 | 3.1 | 2.85 |
| 07 | --- | 9.2 | 28 | 250 | --- | 110 | 3.0 | 3.8 | 2.85 |
| 08 | --- | 9.2 | 28 | 240 | --- | 110 | 3.4 | 4.4 | 2.80 |
| 09 | --- | 9.6 | 28 | 230 | --- | 110 | 3.7 | 4.6 | 2.75 |
| 10 | 440 | 9.9 | 29 | 220 | 5.8 | 110 | 3.8 | 4.7 | 2.65 |
| 11 | 440 | 10.7 | 29 | 220 | 5.9 | 110 | 4.0 | 4.9 | 2.60 |
| 12 | 400 | 10.5 | 30 | 220 | 6.0 | 110 | 4.0 | | 2.60 |
| 13 | 380 | 10.8 | 30 | 240 | 5.9 | 110 | 4.0 | | 2.60 |
| 14 | 380 | 10.7 | 28 | 240 | 5.9 | 110 | 4.0 | | 2.60 |
| 15 | 370 | 10.6 | 29 | 240 | 5.7 | 110 | 3.8 | 4.7 | 2.65 |
| 16 | --- | 10.4 | 29 | 250 | | 110 | 3.6 | 5.4 | 2.70 |
| 17 | --- | 10.2 | 26 | 260 | | 120 | 3.4 | 4.9 | 2.70 |
| 18 | | (10.2) | 23 | 270 | | 120 | 2.7 | 4.8 | (2.80) |
| 19 | | (9.9) | 24 | 270 | | 140 | 1.0 | 4.2 | (2.80) |
| 20 | | (9.0) | 11 | 270 | | | | 4.6 | (2.65) |
| 21 | | (8.0) | 18 | 290 | | | | 3.8 | (2.60) |
| 22 | | (8.8) | 22 | 300 | | | | 2.9 | (2.60) |
| 23 | | (8.6) | 20 | 300 | | | | 2.7 | (2.55) |

Time: 15.0°E.
Sweep: 1.4 Mc to 15.0 Mc in 5 minutes, automatic operation.

Table 41

Akita, Japan (39.7°N, 140.1°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 8.8 | 30 | 305 | | | | 2.7 | 2.60 |
| 01 | | 8.4 | 30 | 300 | | | | | 2.65 |
| 02 | | 8.0 | 31 | 290 | | | | 2.4 | 2.60 |
| 03 | | 7.7 | 31 | 295 | | | | | 2.55 |
| 04 | | 7.6 | 31 | 310 | | | | | 2.55 |
| 05 | --- | 8.6 | 31 | 260 | --- | | 2.10 | | 2.70 |
| 06 | --- | 9.4 | 31 | 250 | --- | | 2.80 | 3.3 | 2.80 |
| 07 | (390) | 9.6 | 31 | 245 | --- | | 3.30 | 4.0 | 2.75 |
| 08 | 360 | 9.6 | 31 | 245 | 5.8 | | 3.60 | 4.5 | 2.70 |
| 09 | 380 | 9.7 | 31 | 240 | 6.0 | | 3.80 | 5.0 | 2.60 |
| 10 | 380 | 10.2 | 31 | 240 | 6.3 | | 4.00 | 4.7 | 2.60 |
| 11 | 390 | 10.5 | 31 | 240 | 6.2 | | 4.00 | 5.4 | 2.60 |
| 12 | 375 | 11.0 | 31 | 245 | 6.0 | | 4.05 | 5.6 | 2.60 |
| 13 | 365 | 10.9 | 31 | 240 | 6.0 | | 4.00 | 5.2 | 2.60 |
| 14 | 350 | 10.8 | 31 | 245 | 6.0 | | 3.95 | 5.7 | 2.65 |
| 15 | 350 | 10.9 | 31 | 245 | 5.6 | | 3.70 | 5.0 | 2.70 |
| 16 | 335 | 10.5 | 31 | 250 | --- | | 3.45 | 5.2 | 2.70 |
| 17 | (300) | 10.2 | 31 | 255 | | | 2.90 | 4.5 | 2.75 |
| 18 | --- | 9.7 | 31 | 270 | | | 2.20 | 5.0 | 2.80 |
| 19 | | 9.6 | 31 | 280 | | | | 5.4 | 2.75 |
| 20 | | 9.0 | 31 | 290 | | | | 3.9 | 2.60 |
| 21 | | 8.9 | 31 | 300 | | | | 3.6 | 2.55 |
| 22 | | 9.1 | 31 | 310 | | | | 3.1 | 2.55 |
| 23 | | 9.0 | 31 | 305 | | | | 2.3 | 2.60 |

Time: 135.0°E.
Sweep: 1.6 Mc to 20.0 Mc in 20 seconds.

Table 42

Tokyo, Japan (35.7°N, 139.5°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 9.3 | 30 | 305 | | | | 3.1 | 2.55 |
| 01 | | 9.2 | 30 | 300 | | | | 2.3 | 2.55 |
| 02 | | 8.4 | 29 | 295 | | | | | 2.60 |
| 03 | | 8.0 | 29 | 300 | | | | | 2.50 |
| 04 | | 7.8 | 29 | 305 | | | | | 2.50 |
| 05 | --- | 8.6 | 30 | 260 | | | | | 2.70 |
| 06 | --- | 9.6 | 30 | 250 | | | 2.00 | 3.1 | 2.80 |
| 07 | --- | 9.7 | 30 | 245 | --- | | 3.30 | 4.0 | 2.70 |
| 08 | (350) | 10.0 | 30 | 245 | --- | | 3.60 | 4.7 | 2.60 |
| 09 | 360 | 10.4 | 30 | (250) | --- | | 3.85 | 4.9 | 2.55 |
| 10 | 380 | 10.9 | 30 | 245 | --- | | (4.00) | 4.8 | 2.50 |
| 11 | 390 | 11.2 | 31 | 245 | 6.4 | | (4.10) | 4.7 | 2.50 |
| 12 | 385 | 11.8 | 31 | 255 | 6.3 | | (4.10) | 4.4 | 2.50 |
| 13 | 360 | 11.9 | 31 | (255) | --- | | (4.00) | 4.9 | 2.55 |
| 14 | 350 | 11.9 | 31 | 250 | --- | | (3.90) | 4.6 | 2.60 |
| 15 | 350 | 11.7 | 31 | 250 | --- | | (3.80) | 4.4 | 2.60 |
| 16 | 340 | 11.3 | 31 | 255 | | | 3.50 | 5.0 | 2.65 |
| 17 | (310) | 11.2 | 30 | 260 | | | 2.95 | 4.9 | 2.70 |
| 18 | --- | 10.8 | 30 | 275 | | | ---- | 4.9 | 2.75 |
| 19 | | 9.9 | 30 | 280 | | | | 4.5 | 2.70 |
| 20 | | 9.2 | 30 | (300) | | | | 5.0 | 2.50 |
| 21 | | (9.2) | 28 | 310 | | | | 3.6 | 2.45 |
| 22 | | 9.5 | 28 | 325 | | | | 3.1 | 2.50 |
| 23 | | 9.6 | 29 | 310 | | | | 3.2 | 2.55 |

Time: 135.0°E.
Sweep: 1.0 Mc to 20.0 Mc in 20 seconds.

Table 43

Yamagawa, Japan (31.2°N, 130.6°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 10.6 | 28 | 280 | | | | 3.1 | 2.75 |
| 01 | | 10.5 | 28 | 275 | | | | 3.2 | 2.80 |
| 02 | | 9.7 | 27 | 250 | | | | 2.9 | 2.85 |
| 03 | | 9.0 | 28 | 250 | | | | 2.8 | 2.75 |
| 04 | | 8.5 | 30 | 260 | | | | 1.8 | 2.70 |
| 05 | | 8.3 | 28 | 275 | | | | 1.4 | 2.70 |
| 06 | | 8.0 | 30 | 245 | | | 2.20 | 2.5 | 2.95 |
| 07 | | 9.9 | 30 | 230 | | | 3.00 | 3.5 | 3.00 |
| 08 | | 10.0 | 29 | 230 | | | 3.45 | 4.6 | 2.05 |
| 09 | --- | 10.7 | 31 | 235 | | | 3.70 | 5.5 | 2.65 |
| 10 | --- | 11.4 | 31 | 230 | --- | | 4.00 | 5.7 | 2.65 |
| 11 | 350 | 11.7 | 31 | 240 | 7.0 | | 4.00 | 6.0 | 2.60 |
| 12 | 355 | 12.5 | 31 | 230 | 6.6 | | 4.10 | 6.2 | 2.65 |
| 13 | 350 | 12.9 | 31 | 225 | 6.5 | | 4.10 | 5.1 | 2.70 |
| 14 | 345 | 13.1 | 30 | 240 | 6.5 | | 4.05 | 5.0 | 2.70 |
| 15 | 340 | 13.0 | 30 | 240 | 6.5 | | 3.95 | 5.5 | 2.75 |
| 16 | 320 | 13.2 | 29 | 250 | 6.3 | | 3.65 | 5.3 | 2.75 |
| 17 | 300 | 12.8 | 29 | 250 | | | 3.25 | 4.6 | 2.75 |
| 18 | | 12.4 | 28 | 250 | | | 2.60 | 4.6 | 2.80 |
| 19 | | 12.0 | 28 | 270 | | | | 4.8 | 2.00 |
| 20 | | 11.1 | 25 | 275 | | | | 4.2 | 2.65 |
| 21 | | 11.1 | 28 | 300 | | | | 3.0 | 2.60 |
| 22 | | 11.0 | 26 | 300 | | | | 3.3 | 2.60 |
| 23 | | 10.0 | 26 | 295 | | | | 3.3 | 2.65 |

Time: 135.0°E.
Sweep: 1.0 Mc to 19.4 Mc in 1 minute.

Table 44

Ibadan, Nigeria (7.4°N, 3.9°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 7.0 | 29 | 395 | | | | | ---- |
| 01 | | 7.0 | 30 | 380 | | | | | ---- |
| 02 | | 6.9 | 30 | 315 | | | | | ---- |
| 03 | | 7.0 | 30 | 270 | | | | | ---- |
| 04 | | 6.4 | 30 | 250 | | | | | (3.30) |
| 05 | | 4.5 | 29 | 245 | | | | | 3.20 |
| 06 | | 8.5 | 27 | 250 | | | 2.25 | | 3.10 |
| 07 | | 11.7 | 29 | 245 | | | 3.10 | | 3.10 |
| 08 | | 13.5 | 31 | 235 | | | 3.60 | 6.8 | 2.95 |
| 09 | | 14.2 | 28 | 230 | | | (3.95) | 7.0 | 2.70 |
| 10 | | (14.2) | 28 | 215 | | | (4.10) | 7.0 | (2.40) |
| 11 | | >14.2 | 30 | 205 | | | (4.30) | 7.0 | (2.30) |
| 12 | | (13.5) | 29 | 200 | | | 4.30 | 7.0 | (2.20) |
| 13 | | 13.2 | 29 | 200 | | | (4.20) | 7.0 | (2.20) |
| 14 | | 13.6 | 31 | 200 | | | 4.00 | 7.0 | (2.20) |
| 15 | | (13.2) | 31 | 210 | | | 3.70 | 7.0 | (2.20) |
| 16 | | >12.8 | 30 | 235 | | | 3.30 | 7.0 | (2.20) |
| 17 | | >12.7 | 29 | 255 | | | 2.65 | 4.4 | (2.25) |
| 18 | | >11.7 | 29 | 300 | | | 1.60 | | (2.15) |
| 19 | | >9.5 | 28 | 400 | | | | | ---- |
| 20 | | >8.5 | 29 | 405 | | | | | ---- |
| 21 | | 7.5 | 31 | 420 | | | | | ---- |
| 22 | | 7.0 | 31 | 405 | | | | | ---- |
| 23 | | 7.0 | 30 | 410 | | | | | ---- |

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 45

Bunia, Belgian Congo (1.5°N, 30.2°E) May 1959

| Time | h'F2 | foF2—Count | | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | 240 | 11.4 | 4 | | | | | 3.0 | ---- |
| 01 | 240 | (10.6) | 6 | | | | | 3.0 | (2.79) |
| 02 | 230 | 8.5 | 13 | | | | | 2.1 | 2.94 |
| 03 | 230 | 6.7 | 13 | | | | | 2.5 | 3.11 |
| 04 | 265 | 8.0 | 22 | --- | --- | --- | --- | 3.0 | 2.84 |
| 05 | 250 | 11.5 | 27 | 250 | --- | 120 | 2.9 | 4.0 | 2.87 |
| 06 | 270 | 13.8 | 29 | 240 | --- | 120 | 3.4 | 4.5 | 2.78 |
| 07 | (315) | 14.4 | 30 | 240 | --- | 115 | 3.7 | 4.7 | 2.61 |
| 08 | 360 | 15.0 | 30 | 245 | --- | 115 | 4.0 | 4.9 | 2.48 |
| 09 | 390 | 15.1 | 25 | 250 | --- | 110 | 4.0 | 5.0 | 2.36 |
| 10 | 435 | 15.1 | 25 | 250 | --- | 110 | 4.1 | 5.0 | 2.18 |
| 11 | 465 | 15.0 | 22 | 250 | --- | 110 | 4.0 | | 2.07 |
| 12 | (480) | 14.6 | 25 | 250 | --- | 110 | 4.0 | 4.6 | 2.05 |
| 13 | (440) | 14.4 | 23 | 245 | --- | 115 | 3.7 | 4.0 | 2.05 |
| 14 | (455) | 14.3 | 23 | 245 | --- | 120 | 3.1 | 4.1 | <2.07 |
| 15 | --- | >14.3 | 23 | 260 | --- | 120 | 2.6 | 3.4 | 2.13 |
| 16 | 290 | 14.4 | 23 | 290 | --- | | | 2.6 | 2.16 |
| 17 | 350 | 13.7 | 12 | | | | | 3.0 | 2.10 |
| 18 | 340 | ---- | 0 | | | | | 2.1 | |
| 19 | 290 | ---- | 0 | | | | | 2.0 | |
| 20 | 270 | ---- | 0 | | | | | 2.0 | |
| 21 | 260 | (12.7) | 1 | | | | | 3.0 | ---- |
| 22 | 250 | (13.0) | 1 | | | | | 3.5 | ---- |
| 23 | 230 | (11.5) | 1 | | | | | 3.8 | ---- |

Time: 0.0°.
Sweep: 1.0 Mc to 20.0 Mc in 7 seconds.

Table 46

Singapore, British Malaya (1.3°N, 103.8°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 13.7 | 18 | 235 | | --- | ---- | 3.0 | 2.90 |
| 01 | | 12.2 | 27 | 225 | | --- | ---- | 2.8 | 3.10 |
| 02 | | 9.5 | 25 | 225 | | --- | ---- | 2.0 | 3.05 |
| 03 | | 8.0 | 26 | 230 | | --- | ---- | 2.4 | 3.10 |
| 04 | | 7.0 | 26 | 225 | | --- | ---- | 2.7 | 3.15 |
| 05 | | 5.2 | 26 | 230 | | --- | ---- | 2.6 | 3.15 |
| 06 | --- | 6.7 | 29 | 280 | --- | 115 | ---- | 2.8 | 2.90 |
| 07 | --- | 11.0 | 30 | 255 | --- | 120 | 2.80 | | 2.90 |
| 08 | --- | 14.1 | 26 | 245 | --- | 110 | 3.50 | | 2.90 |
| 09 | --- | 14.9 | 25 | 230 | --- | 110 | 3.90 | 4.2 | 2.65 |
| 10 | --- | 15.1 | 23 | 220 | --- | 105 | 4.10 | | 2.40 |
| 11 | --- | 14.8 | 26 | 220 | --- | 110 | 4.30 | | 2.15 |
| 12 | --- | >13.8 | 26 | 210 | --- | 105 | 4.35 | | 2.10 |
| 13 | 270 | 13.4 | 29 | 205 | --- | 110 | 4.30 | | 2.05 |
| 14 | --- | 12.9 | 29 | 215 | --- | 110 | (4.10) | | 2.05 |
| 15 | 240 | 12.9 | 29 | 220 | --- | 110 | (3.85) | | 2.10 |
| 16 | --- | 12.9 | 29 | 245 | --- | 110 | (3.30) | 3.8 | 2.15 |
| 17 | --- | 13.2 | 30 | 255 | --- | 115 | 2.70 | 3.2 | 2.20 |
| 18 | --- | 13.4 | 29 | 290 | --- | --- | ---- | 3.2 | 2.30 |
| 19 | | 13.5 | 27 | 350 | | --- | ---- | 2.6 | 2.30 |
| 20 | | (13.6) | 8 | 350 | | --- | ---- | <1.4 | (2.20) |
| 21 | | >13.9 | 8 | 270 | | --- | ---- | 2.4 | (2.60) |
| 22 | | (14.0) | 9 | 240 | | --- | ---- | 3.2 | (2.70) |
| 23 | | 14.0 | 17 | 245 | | --- | ---- | 2.9 | ---- |

Time: 105.0°E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 47

Leopoldville, Belgian Congo (4.4°S, 15.2°E) May 1959

| Time | h'F2 | foF2—Count | | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | 220 | 12.8 | 16 | | | | | 1.8 | 2.77 |
| 01 | 210 | 9.5 | 18 | | | | | 2.1 | 2.78 |
| 02 | 225 | 6.9 | 19 | | | | | 2.0 | 2.84 |
| 03 | 235 | 5.6 | 24 | | | | | 2.6 | <2.78 |
| 04 | 245 | 5.0 | 24 | | | | | 2.7 | 2.74 |
| 05 | 270 | 6.6 | 27 | --- | --- | --- | --- | 2.8 | <2.75 |
| 06 | --- | 10.0 | 23 | 250 | --- | 120 | 2.8 | 3.6 | 2.01 |
| 07 | (270) | 12.4 | 25 | 240 | --- | 115 | 3.4 | 4.2 | 2.65 |
| 08 | 275 | 13.6 | 30 | 235 | --- | 115 | 3.8 | 3.8 | 2.63 |
| 09 | (310) | 13.8 | 30 | 240 | --- | 110 | 4.0 | | 2.50 |
| 10 | (335) | 14.4 | 29 | 250 | --- | 110 | --- | | 2.46 |
| 11 | 350 | 14.4 | 30 | 250 | --- | 110 | --- | | 2.38 |
| 12 | 370 | 14.7 | 31 | 250 | --- | 110 | --- | | 2.34 |
| 13 | 375 | 15.0 | 30 | 250 | --- | 110 | 4.0 | | 2.29 |
| 14 | 370 | 14.8 | 31 | 240 | --- | 110 | 3.6 | 3.7 | 2.26 |
| 15 | 360 | 15.0 | 29 | 245 | --- | 115 | 3.2 | 4.1 | 2.29 |
| 16 | --- | 14.6 | 27 | 260 | --- | 120 | 2.5 | 3.9 | 2.35 |
| 17 | 280 | 15.0 | 20 | --- | --- | | | 3.4 | 2.42 |
| 18 | 290 | 16.0 | 11 | | | | | 3.0 | 2.56 |
| 19 | 280 | >17.5 | 1 | | | | | 2.9 | ---- |
| 20 | 240 | (17.3) | 1 | | | | | | ---- |
| 21 | 230 | (13.8) | 2 | | | | | | ---- |
| 22 | 230 | (15.0) | 7 | | | | | | (2.77) |
| 23 | 220 | 14.2 | 12 | | | | | 1.8 | <2.76 |

Time: 0.0°.
Sweep: 1.0 Mc to 20.0 Mc in 7 seconds.

Table 48

Elisabethville, Belgian Congo (11.6°S, 27.5°E) May 1959

| Time | h'F2 | foF2—Count | | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | 240 | 6.5 | 22 | | | | | | 2.63 |
| 01 | 240 | 5.4 | 25 | | | | | | 2.82 |
| 02 | 250 | 4.0 | 28 | | | | | 1.5 | 2.83 |
| 03 | 250 | 3.2 | 29 | | | | | | 2.89 |
| 04 | 260 | 4.5 | 29 | --- | --- | | | | 2.53 |
| 05 | 250 | 9.0 | 30 | 250 | --- | 130 | 2.4 | 2.8 | 2.96 |
| 06 | 250 | 11.4 | 30 | 240 | --- | 115 | 3.1 | | 2.90 |
| 07 | 258 | 12.5 | 30 | 240 | --- | 110 | 3.6 | | 2.85 |
| 08 | 280 | 13.0 | 29 | 245 | --- | 110 | 3.9 | | 2.64 |
| 09 | 300 | 13.0 | 29 | 250 | --- | 110 | 4.0 | | 2.56 |
| 10 | 310 | 13.4 | 30 | 250 | --- | 110 | 4.0 | | 2.54 |
| 11 | 340 | 13.5 | 30 | 250 | --- | 110 | 4.0 | 4.3 | 2.46 |
| 12 | 340 | 13.2 | 29 | 250 | --- | 110 | 3.9 | 4.5 | 2.45 |
| 13 | 340 | 13.1 | 31 | 245 | --- | 110 | 3.6 | 4.5 | 2.41 |
| 14 | 320 | 13.0 | 30 | 250 | --- | 110 | 3.2 | 4.0 | 2.46 |
| 15 | (295) | 13.0 | 29 | 260 | --- | 120 | 2.6 | 3.5 | 2.54 |
| 16 | 255 | 13.1 | 30 | | | | | 3.0 | 2.60 |
| 17 | 250 | 12.6 | 27 | | | | | 3.0 | 2.71 |
| 18 | 240 | 11.5 | 20 | | | | | 2.7 | 2.69 |
| 19 | 230 | 11.0 | 16 | | | | | 2.2 | 2.63 |
| 20 | 240 | 10.9 | 15 | | | | | 1.8 | 2.76 |
| 21 | 230 | 11.0 | 19 | | | | | 1.7 | 2.75 |
| 22 | 230 | 9.0 | 21 | | | | | | 2.69 |
| 23 | 240 | 6.6 | 19 | | | | | | 2.72 |

Time: 0.0°.
Sweep: 1.0 Mc to 20.0 Mc in 7 seconds.

Table 49

Brisbane, Australia (27.5°S, 152.9°E) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.6 | 26 | 260 | | | | | 2.80 |
| 01 | | 6.5 | 26 | 260 | | | | | 2.80 |
| 02 | | 6.3 | 26 | 260 | | | | | 2.75 |
| 03 | | 6.0 | 25 | 255 | | | | | 2.85 |
| 04 | | 5.5 | 25 | 250 | | | | | 2.80 |
| 05 | | 5.3 | 25 | 250 | | | | | 2.80 |
| 06 | | 5.8 | 25 | 250 | | | ---- | | 2.90 |
| 07 | | 9.9 | 25 | 230 | | | 2.40 | | 3.25 |
| 08 | | 12.0 | 25 | 230 | | | 3.00 | | 3.20 |
| 09 | | 13.0 | 25 | 230 | | | 3.40 | 3.4 | 3.10 |
| 10 | | 13.2 | 25 | 230 | | | 3.60 | 4.0 | 3.05 |
| 11 | | 13.0 | 24 | 225 | | | 3.70 | 4.3 | 2.95 |
| 12 | | 12.6 | 24 | 220 | | | 3.80 | 4.3 | 2.85 |
| 13 | | 12.9 | 25 | 220 | | | 3.70 | 4.2 | 2.80 |
| 14 | | 13.0 | 25 | 230 | | | 3.60 | 4.0 | 2.80 |
| 15 | | 12.6 | 26 | 230 | | | 3.30 | | 2.80 |
| 16 | | 12.0 | 25 | 240 | | | 2.80 | | 2.90 |
| 17 | | 11.6 | 27 | 240 | | | 2.10 | | 2.85 |
| 18 | | 10.0 | 27 | 225 | | | ---- | | 2.85 |
| 19 | | 8.6 | 25 | 240 | | | | | 2.85 |
| 20 | | 8.5 | 25 | 240 | | | | | 2.80 |
| 21 | | 7.9 | 24 | 250 | | | | | 2.75 |
| 22 | | 7.4 | 24 | 250 | | | | | 2.80 |
| 23 | | 6.8 | 26 | 260 | | | | | 2.70 |

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 50

Falkland Is. (51.7°S, 57.0°W) May 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 3.6 | 31 | 340 | | | | <1.4 | 2.35 |
| 01 | | 3.7 | 31 | 350 | | | | | 2.35 |
| 02 | | 3.6 | 31 | 335 | | | ---- | | 2.40 |
| 03 | | 3.5 | 31 | 315 | | | | | 2.50 |
| 04 | | 3.5 | 31 | 305 | | | | | 2.50 |
| 05 | | 3.5 | 31 | 280 | | | | | 2.65 |
| 06 | | 3.4 | 31 | 245 | | | ---- | | (2.40) |
| 07 | | 5.3 | 29 | 250 | | 165 | 1.60 | | ---- |
| 08 | | 8.3 | 30 | 220 | | | 2.30 | 2.4 | 3.20 |
| 09 | | 11.0 | 30 | 220 | | 115 | (2.70) | 3.1 | 3.25 |
| 10 | | 12.0 | 30 | 225 | | 110 | 2.90 | 3.4 | 3.20 |
| 11 | | 12.8 | 31 | 235 | | 110 | 3.05 | 3.3 | 3.20 |
| 12 | | 13.0 | 28 | 235 | | 105 | 3.10 | 3.3 | 3.15 |
| 13 | | 11.6 | 29 | 230 | | | 3.00 | | 3.15 |
| 14 | | 11.1 | 31 | 240 | | | 2.90 | | 3.10 |
| 15 | | 10.6 | 29 | 230 | | | 2.40 | 2.7 | 3.20 |
| 16 | | 8.5 | 29 | 215 | | | 2.00 | 3.9 | 3.20 |
| 17 | | 7.1 | 31 | 210 | | | | 3.0 | 3.10 |
| 18 | | 5.8 | 31 | 230 | | | | 3.4 | 3.20 |
| 19 | | 4.4 | 31 | 230 | | | | <1.6 | (3.10) |
| 20 | | 3.7 | 31 | <250 | | | | <1.7 | (2.75) |
| 21 | | 3.5 | 31 | <300 | | | | <1.5 | 2.55 |
| 22 | | 3.5 | 31 | <345 | | | | <1.4 | 2.45 |
| 23 | | 3.6 | 31 | <350 | | | | <1.4 | 2.30 |

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 51

Resolute Bay, Canada (74.7°N, 94.9°W) April 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.3 | 30 | 280 | | 115 | 1.5 | 1.8 | 2.6 |
| 01 | | 6.8 | 30 | 270 | | 130 | 1.6 | 1.7 | 2.6 |
| 02 | | 6.8 | 30 | 270 | | 140 | 1.5 | 1.6 | 2.6 |
| 03 | | 6.8 | 30 | 270 | | 110 | 1.7 | | 2.6 |
| 04 | | 6.3 | 30 | 260 | | 105 | 1.9 | | 2.7 |
| 05 | --- | 6.0 | 30 | 270 | --- | 100 | 2.1 | | 2.7 |
| 06 | (480) | 6.2 | 30 | 260 | 3.7 | 100 | 2.3 | | 2.7 |
| 07 | 410 | 6.6 | 30 | 250 | 4.0 | 100 | 2.6 | | 2.7 |
| 08 | 460 | 6.2 | 29 | 240 | 4.4 | 100 | 2.8 | | 2.6 |
| 09 | 460 | 6.4 | 29 | 240 | 4.4 | 100 | 2.9 | | 2.55 |
| 10 | 480 | 6.0 | 30 | 240 | 4.5 | 100 | 3.1 | | 2.5 |
| 11 | 470 | 5.9 | 30 | 230 | 4.5 | 100 | 3.2 | 4.4 | 2.5 |
| 12 | 500 | 6.2 | 30 | 230 | 4.5 | 100 | 3.2 | | 2.5 |
| 13 | 460 | 6.0 | 30 | 240 | 4.5 | 100 | 3.2 | | 2.5 |
| 14 | 470 | 6.0 | 30 | 230 | 4.6 | 100 | 3.1 | | 2.4 |
| 15 | 400 | 6.6 | 30 | 240 | 4.5 | 100 | 3.0 | | 2.5 |
| 16 | 430 | 6.4 | 30 | 240 | 4.4 | 100 | 2.9 | | 2.5 |
| 17 | 400 | 6.8 | 29 | 250 | 4.3 | 100 | 2.7 | | 2.4 |
| 18 | (400) | 7.1 | 30 | 260 | 4.0 | 100 | 2.5 | | 2.5 |
| 19 | --- | 7.0 | 29 | 260 | --- | 100 | 2.3 | | 2.5 |
| 20 | | 7.0 | 29 | 270 | | 105 | 2.0 | | 2.5 |
| 21 | | 7.0 | 30 | 270 | | 110 | 1.0 | 2.1 | 2.6 |
| 22 | | 6.7 | 30 | 270 | | 110 | 1.7 | 2.8 | 2.6 |
| 23 | | 6.4 | 30 | 280 | | 110 | 1.6 | 2.8 | 2.6 |

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 52

Formosa, China (25.0°N, 121.5°E) April 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 17.0 | 19 | 260 | | | | | 2.90 |
| 01 | | 14.8 | 21 | 240 | | | | | 2.95 |
| 02 | | 12.6 | 23 | 230 | | | | | 3.10 |
| 03 | | 10.4 | 24 | 220 | | | | | 2.90 |
| 04 | | 8.3 | 25 | 240 | | | | | 2.85 |
| 05 | | 7.4 | 26 | 260 | | | | | 2.70 |
| 06 | | 8.9 | 29 | 260 | | | --- | 2.2 | 2.85 |
| 07 | | 11.2 | 29 | 240 | | | 2.9 | 3.3 | 2.90 |
| 08 | | 12.4 | 30 | 240 | | | 3.7 | 3.9 | 2.90 |
| 09 | | 13.2 | 29 | 230 | | | --- | 4.4 | 2.80 |
| 10 | | 14.0 | 30 | 230 | | | --- | 4.7 | 2.65 |
| 11 | | 15.2 | 30 | 230 | | | | 4.6 | 2.60 |
| 12 | (420) | 15.8 | 29 | 230 | --- | | | | 2.60 |
| 13 | --- | 16.6 | 30 | 230 | --- | | | | 2.60 |
| 14 | 400 | 17.4 | 30 | 230 | --- | | | | 2.60 |
| 15 | (400) | 17.4 | 30 | 230 | | | 3.7 | | 2.60 |
| 16 | (380) | 17.4 | 30 | 240 | | | 3.4 | 3.4 | 2.60 |
| 17 | | 17.2 | 29 | 260 | | | 2.9 | | 2.65 |
| 18 | | 17.2 | 29 | 280 | | | | | 2.65 |
| 19 | | 16.8 | 29 | 300 | | | | | 2.60 |
| 20 | | >17.3 | 24 | 310 | | | | | 2.55 |
| 21 | | 17.4 | 20 | 300 | | | | | 2.65 |
| 22 | | 17.5 | 19 | 280 | | | | | 2.70 |
| 23 | | 17.6 | 20 | 280 | | | | | 2.00 |

Time: 120.0°E.
Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.

Table 53

Johannesburg, Union of S. Africa (26.1°S, 28.1°E) April 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 5.4 | 30 | <250 | | | | 1.8 | 2.80 |
| 01 | | 5.0 | 30 | <255 | | | | 1.2 | 2.70 |
| 02 | | 4.8 | 30 | (250) | | | | 1.2 | 2.75 |
| 03 | | 4.6 | 30 | <245 | | | | 1.1 | 2.85 |
| 04 | | 3.9 | 30 | (240) | | | | | 2.75 |
| 05 | | 3.7 | 30 | (250) | | | | | 2.75 |
| 06 | | 4.6 | 30 | 255 | | | <1.1 | <1.1 | 2.70 |
| 07 | | 8.9 | 30 | 230 | | | 2.4 | | 3.20 |
| 08 | --- | 11.4 | 29 | 225 | | | 3.1 | | 3.15 |
| 09 | --- | 12.7 | 29 | 225 | | | 3.5 | 3.7 | 3.00 |
| 10 | --- | 13.5 | 29 | 220 | | | 3.8 | 4.0 | 2.90 |
| 11 | --- | 13.5 | 29 | 210 | | | 3.9 | | 2.80 |
| 12 | --- | 13.5 | 30 | 210 | | | 4.0 | | 2.70 |
| 13 | | 13.7 | 30 | 210 | | | 4.0 | | 2.65 |
| 14 | | 13.8 | 30 | 230 | | | 3.9 | | 2.65 |
| 15 | | 13.3 | 30 | 230 | | | 3.7 | 3.8 | 2.65 |
| 16 | | 13.0 | 30 | 235 | | | 3.1 | 3.6 | 2.65 |
| 17 | | 12.9 | 30 | 245 | | | 2.6 | 2.7 | 2.75 |
| 18 | | 12.6 | 30 | 235 | | | 1.6 | 1.8 | 2.80 |
| 19 | | 11.2 | 30 | 225 | | | | 1.8 | 2.85 |
| 20 | | 10.1 | 30 | 230 | | | | <1.5 | (2.90) |
| 21 | | 9.4 | 30 | 230 | | | | <1.4 | 3.00 |
| 22 | | 7.5 | 30 | 225 | | | | <1.6 | 3.00 |
| 23 | | 6.1 | 30 | (240) | | | | <1.6 | 2.85 |

Time: 30.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 54

Capetown, Union of S. Africa (34.1°S, 18.3°E) April 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 4.4 | 18 | <265 | | | | <1.6 | 2.80 |
| 01 | | 4.0 | 17 | <290 | | | | <1.5 | 2.65 |
| 02 | | 4.0 | 17 | <300 | | | | <2.0 | 2.60 |
| 03 | | 4.0 | 17 | <300 | | | | <1.4 | 2.60 |
| 04 | | 4.0 | 17 | <270 | | | | (1.3) | 2.70 |
| 05 | | 3.9 | 17 | <260 | | | | <1.2 | 2.75 |
| 06 | | 3.7 | 17 | <270 | | | | <1.2 | 2.75 |
| 07 | | 5.7 | 17 | 255 | | | 1.6 | | 2.90 |
| 08 | | 9.5 | 17 | 230 | | | 2.6 | | 3.20 |
| 09 | | 11.9 | 21 | 230 | | | 3.1 | | 3.05 |
| 10 | --- | 12.8 | 19 | 230 | | | 3.4 | | 3.00 |
| 11 | --- | 13.4 | 18 | 225 | | | 3.7 | | 2.85 |
| 12 | --- | 13.9 | 19 | 220 | | | 3.9 | | 2.75 |
| 13 | | 14.4 | 20 | 225 | | | 3.9 | | 2.75 |
| 14 | | 14.2 | 20 | 235 | | | 3.9 | | 2.70 |
| 15 | | 14.0 | 21 | 235 | | | 3.7 | | 2.65 |
| 16 | | 13.9 | 21 | 240 | | | 3.3 | | 2.70 |
| 17 | | 13.7 | 19 | 245 | | | 2.8 | | 2.70 |
| 18 | | 13.4 | 19 | 240 | | | 2.0 | | 2.75 |
| 19 | | 12.2 | 20 | 225 | | | <1.4 | <1.6 | 2.85 |
| 20 | | 10.8 | 20 | 225 | | | | <1.6 | 2.90 |
| 21 | | 9.4 | 21 | 225 | | | | <1.4 | 3.00 |
| 22 | | 7.2 | 21 | 225 | | | | <1.4 | 3.00 |
| 23 | | 5.2 | 19 | (235) | | | | <1.4 | 2.90 |

Time: 30.0°E.
Sweep: 1.0 Mc to 17.0 Mc in 7 seconds.

Table 55

Upsala, Sweden (59.8°N, 17.6°E) January 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 3.5 | 31 | 305 | | --- | ---- | 2.9 | 2.4 |
| 01 | | 3.4 | 28 | 305 | | 110 | (0.60) | 2.8 | 2.5 |
| 02 | | 3.1 | 30 | 310 | | 110 | (0.55) | 3.0 | 2.4 |
| 03 | | 3.1 | 30 | 310 | | 110 | (0.65) | 2.6 | 2.4 |
| 04 | | 3.2 | 30 | 290 | | 110 | ---- | 2.5 | 2.5 |
| 05 | | 3.4 | 30 | 270 | | 110 | (0.70) | 2.7 | 2.6 |
| 06 | | 3.3 | 30 | 250 | | --- | (0.70) | 2.4 | 2.6 |
| 07 | | 3.6 | 30 | 255 | | 110 | (0.70) | 2.1 | 2.6 |
| 08 | | 6.0 | 29 | 245 | | 115 | 1.15 | 2.5 | 2.7 |
| 09 | | 9.0 | 30 | 240 | | 110 | 1.80 | 2.7 | 3.0 |
| 10 | | 11.8 | 30 | 235 | | 115 | 2.20 | | 3.0 |
| 11 | | 13.2 | 31 | 230 | | 110 | 2.30 | | 3.0 |
| 12 | | 13.9 | 31 | 230 | | 115 | 2.40 | | 2.9 |
| 13 | | 14.0 | 31 | 230 | | 110 | 2.35 | | 3.0 |
| 14 | | 13.8 | 31 | 225 | | 110 | 2.10 | 2.3 | 3.0 |
| 15 | | 12.7 | 31 | 225 | | 110 | 1.80 | 2.1 | 2.9 |
| 16 | | 11.6 | 31 | 220 | | 115 | 1.10 | 2.9 | 3.0 |
| 17 | | 9.8 | 31 | 215 | | 110 | (0.90) | 2.5 | 2.9 |
| 18 | | 7.5 | 30 | 225 | | 110 | ---- | 3.0 | 2.9 |
| 19 | | 6.0 | 31 | 240 | | 110 | (0.65) | 2.3 | 2.8 |
| 20 | | 4.6 | 31 | 260 | | 110 | ---- | 1.2 | 2.7 |
| 21 | | 4.4 | 31 | 260 | | 110 | ---- | 1.8 | 2.6 |
| 22 | | 4.0 | 30 | 275 | | 110 | (0.60) | 2.3 | 2.5 |
| 23 | | 3.8 | 30 | 295 | | 110 | ---- | 2.3 | 2.5 |

Time: 15.0°E.
Sweep: 0.33 Mc to 20.0 Mc in 6 minutes, automatic operation.

Table 56

Winnipeg, Canada (49.9°N, 97.4°W) January 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 4.4 | 23 | 250 | | | | | (3.05) |
| 01 | | 4.4 | 25 | 260 | | | | | (3.0) |
| 02 | | 4.2 | 27 | 270 | | | | 2.0 | (3.05) |
| 03 | | 4.0 | 28 | 270 | | | | 2.4 | (3.0) |
| 04 | | 4.1 | 27 | 270 | | | | | 3.05 |
| 05 | | 4.0 | 28 | 260 | | | | | (3.0) |
| 06 | | 3.9 | 26 | 250 | | | | | (3.15) |
| 07 | | 3.8 | 25 | 250 | | | | | 3.1 |
| 08 | | 5.0 | 29 | 240 | | --- | 1.8 | | (3.2) |
| 09 | | 8.1 | 29 | 210 | | 105 | 2.3 | | 3.3 |
| 10 | | 11.2 | 30 | 210 | | 105 | 2.8 | | ---- |
| 11 | | 12.7 | 30 | 210 | | 100 | 3.0 | | 3.25 |
| 12 | | 13.0 | 27 | 210 | | 100 | 3.0 | | ---- |
| 13 | | 13.0 | 20 | 210 | | 100 | 3.0 | | ---- |
| 14 | | 13.2 | 15 | 210 | | 100 | 3.0 | | |
| 15 | | 12.8 | 11 | 210 | | 105 | 2.9 | | |
| 16 | | 13.0 | 17 | 210 | | 110 | 2.5 | | |
| 17 | | 12.7 | 22 | 210 | | --- | 2.0 | | ---- |
| 18 | | 11.2 | 24 | 200 | | | | | |
| 19 | | 9.5 | 24 | 200 | | | | | ---- |
| 20 | | 8.1 | 27 | 210 | | | | | (3.1) |
| 21 | | 7.0 | 26 | 220 | | | | | (3.1) |
| 22 | | 6.1 | 25 | 230 | | | | | 3.2 |
| 23 | | 5.2 | 26 | 240 | | | | | 3.1 |

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 57

San Salvador I. (24.1°N, 74.5°W) January 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.9 | 31 | 250 | | | | | 2.95 |
| 01 | | 6.35 | 30 | 240 | | | | | 3.05 |
| 02 | | 5.1 | 30 | 230 | | | | | 3.05 |
| 03 | | 4.4 | 27 | 250 | | | | | 2.80 |
| 04 | | 4.4 | 27 | <290 | | | | 2.4 | 2.60 |
| 05 | | 4.5 | 27 | 260 | | | | 2.2 | 2.75 |
| 06 | | 4.8 | 30 | 250 | | | | 2.2 | 2.90 |
| 07 | | 8.5 | 30 | 240 | | <151 | 2.20 | | 3.15 |
| 08 | | 11.4 | 28 | 230 | | (113) | 3.00 | | 3.20 |
| 09 | | 12.85 | 30 | 230 | | (109) | 3.50 | 3.6 | 3.10 |
| 10 | | 12.9 | 27 | 220 | | 109 | 3.80 | 3.8 | 3.00 |
| 11 | --- | 12.9 | 29 | <220 | --- | 109 | 4.08 | | 2.85 |
| 12 | --- | 12.75 | 30 | 220 | --- | 109 | 4.10 | | 2.75 |
| 13 | --- | 12.55 | 30 | <225 | --- | <110 | 4.02 | | 2.70 |
| 14 | --- | 12.4 | 27 | 225 | --- | <115 | 3.90 | | 2.65 |
| 15 | | 12.5 | 26 | 230 | | <114 | 3.60 | | 2.65 |
| 16 | | 12.4 | 26 | 240 | | <119 | 3.15 | 3.2 | 2.70 |
| 17 | | 12.1 | 25 | 240 | | <121 | 2.45 | 2.7 | 2.80 |
| 18 | | 10.7 | 27 | 230 | | --- | ---- | 3.1 | 2.80 |
| 19 | | 9.4 | 29 | 240 | | | | 3.0 | 2.80 |
| 20 | | 8.9 | 27 | 245 | | | | 2.7 | 2.85 |
| 21 | | 7.8 | 29 | 245 | | | | 2.4 | 2.80 |
| 22 | | 7.35 | 28 | 250 | | | | | 2.80 |
| 23 | | 7.1 | 30 | 250 | | | | 2.0 | 2.85 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 58

Concepcion, Chile (36.6°S, 73.0°W) January 1959

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 10.0 | 25 | 325 | | | | 5.0 | 2.55 |
| 01 | | 9.5 | 25 | 300 | | | | 4.1 | 2.62 |
| 02 | | 8.8 | 24 | 320 | | | | 3.0 | 2.45 |
| 03 | | 8.6 | 24 | 315 | | | | 2.7 | 2.40 |
| 04 | | 8.6 | 22 | 340 | | | | 3.0 | 2.35 |
| 05 | | 9.0 | 23 | (285) | | 119 | 1.98 | 2.7 | 2.40 |
| 06 | | 9.55 | 24 | 240 | | 110 | 2.85 | 3.4 | 2.70 |
| 07 | | 10.05 | 24 | 235 | | 109 | 3.40 | 4.4 | 2.50 |
| 08 | --- | 10.6 | 24 | 225 | (6.0) | 106 | (3.80) | 4.6 | 2.40 |
| 09 | 445 | 11.45 | 24 | 225 | 6.5 | 109 | (4.00) | 4.3 | 2.35 |
| 10 | 430 | 12.2 | 26 | (225) | 6.3 | 109 | (4.30) | 4.8 | 2.45 |
| 11 | 410 | 12.4 | 28 | <230 | (6.6) | 109 | (4.35) | 5.0 | 2.50 |
| 12 | 410 | 12.35 | 28 | (230) | 6.4 | 109 | (4.45) | | 2.50 |
| 13 | 410 | 12.65 | 28 | <235 | 6.4 | 109 | (4.40) | 4.7 | 2.50 |
| 14 | 405 | 12.05 | 28 | (230) | 6.2 | 109 | (4.25) | | 2.50 |
| 15 | 395 | 11.8 | 28 | (230) | 6.0 | 109 | (4.05) | 4.5 | 2.50 |
| 16 | 395 | 11.1 | 26 | (240) | 5.8 | 109 | (3.82) | 5.0 | 2.50 |
| 17 | <395 | 10.5 | 27 | (245) | --- | 109 | (3.42) | 4.8 | 2.60 |
| 18 | --- | 10.2 | 27 | <270 | | 112 | 2.85 | 4.1 | 2.50 |
| 19 | | 9.6 | 27 | (300) | | --- | ---- | 4.5 | 2.40 |
| 20 | | 9.6 | 28 | (385) | | | | 4.8 | 2.30 |
| 21 | | 9.6 | 27 | (390) | | | | 5.0 | 2.30 |
| 22 | | 9.9 | 25 | <360 | | | | 4.9 | 2.42 |
| 23 | | 10.2 | 25 | 350 | | | | 4.7 | 2.50 |

Time: 75.0°.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 59

San Salvador I. (24.1°N, 74.5°W) December 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.1 | 31 | 250 | | | | | 2.85 |
| 01 | | 5.6 | 30 | 240 | | | | | 3.05 |
| 02 | | 4.8 | 30 | 230 | | | | | 3.00 |
| 03 | | 4.0 | 30 | 255 | | | | | 2.68 |
| 04 | | 4.1 | 27 | <295 | | | | 2.5 | 2.60 |
| 05 | | 4.25 | 30 | (280) | | | | 2.5 | 2.65 |
| 06 | | 4.8 | 30 | 260 | | | | | 2.80 |
| 07 | | 8.7 | 28 | 240 | | (129) | 2.35 | | 3.15 |
| 08 | | 11.7 | 29 | 235 | | 109 | 3.05 | | 3.15 |
| 09 | | 12.8 | 28 | <235 | | (109) | 3.50 | 3.6 | 3.10 |
| 10 | | 12.5 | 31 | 225 | | <109 | 3.70 | 4.0 | 3.00 |
| 11 | | 12.1 | 31 | 215 | | (109) | 3.85 | 4.2 | 2.85 |
| 12 | | 12.1 | 31 | 225 | | (107) | 3.95 | 4.4 | 2.70 |
| 13 | --- | 12.0 | 30 | 225 | | <109 | 3.90 | 4.2 | 2.70 |
| 14 | | 11.9 | 31 | 230 | | <111 | 3.70 | 4.0 | 2.65 |
| 15 | | 11.4 | 31 | 235 | | (111) | 3.40 | 3.8 | 2.65 |
| 16 | | 11.4 | 31 | 240 | | <115 | 2.85 | 3.1 | 2.70 |
| 17 | | 10.9 | 31 | 240 | | <147 | 2.05 | 3.5 | 2.75 |
| 18 | | 10.0 | 31 | 230 | | | | 3.8 | 2.75 |
| 19 | | 8.5 | 31 | 245 | | | | 3.5 | 2.75 |
| 20 | | 7.9 | 31 | <260 | | | | 3.2 | 2.80 |
| 21 | | 7.5 | 31 | 250 | | | | 3.0 | 2.85 |
| 22 | | 7.0 | 31 | 245 | | | | 2.8 | 2.90 |
| 23 | | 6.5 | 31 | 245 | | | | 2.8 | 2.85 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 60

Natal, Brazil (5.3°S, 35.1°W) December 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | (10.2) | 5 | 315 | | | | 2.6 | (2.60) |
| 01 | | (9.35) | 6 | 295 | | | | 3.0 | (2.60) |
| 02 | | (9.2) | 6 | 285 | | | | 3.0 | (2.82) |
| 03 | | (8.0) | 7 | 260 | | | | 3.3 | (2.85 |
| 04 | | 8.4 | 11 | 245 | | | | 3.7 | 2.90 |
| 05 | | 7.4 | 16 | 230 | | | | 3.9 | 2.92 |
| 06 | | 8.05 | 20 | 260 | | --- | 1.65 | 4.0 | 2.90 |
| 07 | | 10.6 | 27 | 250 | | 113 | 2.70 | 4.1 | 2.80 |
| 08 | | 11.5 | 28 | 235 | | 109 | 3.40 | 5.7 | 2.65 |
| 09 | | 12.2 | 28 | 225 | | 109 | 3.80 | 7.5 | 2.45 |
| 10 | | 12.5 | 26 | 220 | | 109 | 4.10 | 9.0 | 2.30 |
| 11 | --- | 12.45 | 26 | 210 | --- | 107 | 4.25 | 9.0 | 2.20 |
| 12 | | 12.0 | 27 | 210 | --- | 107 | 4.35 | 9.3 | 2.10 |
| 13 | | 11.85 | 28 | 205 | (6.4) | 109 | 4.30 | 9.4 | 2.10 |
| 14 | | 12.05 | 28 | 200 | (6.3) | 107 | 4.20 | 9.0 | 2.10 |
| 15 | | 12.2 | 27 | 215 | --- | 107 | 4.00 | 9.0 | 2.10 |
| 16 | | 12.2 | 28 | 235 | --- | 109 | 3.65 | 8.6 | 2.05 |
| 17 | | 12.0 | 27 | 250 | | 109 | 3.15 | 6.0 | 2.05 |
| 18 | | 11.5 | 29 | 280 | | --- | 2.30 | 4.6 | (2.05) |
| 19 | | (10.3) | 28 | 365 | | | | | 2.00 |
| 20 | | (8.45) | 16 | 470 | | | | | (1.92) |
| 21 | | (8.2) | 3 | 460 | | | | | ---- |
| 22 | | (10.8) | 2 | 390 | | | | | ---- |
| 23 | | (10.45) | 6 | 310 | | | | | (2.48) |

Time: 30.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 32.4 seconds.

Table 61

Concepcion, Chile (36.6°S, 73.0°W) December 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | >9.95 | 30 | 340 | | | | 4.0 | 2.50 |
| 01 | | 9.8 | 30 | 320 | | | | 4.1 | 2.45 |
| 02 | | 9.2 | 30 | <320 | | | | 4.0 | 2.50 |
| 03 | | 9.0 | 29 | <335 | | | | 3.9 | 2.40 |
| 04 | | 8.0 | 28 | 355 | | --- | ---- | 2.8 | 2.30 |
| 05 | | 9.7 | 29 | 265 | | 120 | 2.38 | 2.8 | (2.40) |
| 06 | | 10.65 | 30 | 245 | | 105 | (2.95) | 4.0 | 2.50 |
| 07 | --- | 11.0 | 29 | (235) | --- | 105 | 3.50 | 4.0 | 2.45 |
| 08 | --- | 11.4 | 29 | 230 | --- | 105 | 3.80 | 4.6 | 2.40 |
| 09 | 425 | 11.9 | 31 | <235 | 6.4 | 105 | (4.05) | 5.4 | 2.40 |
| 10 | 420 | 12.1 | 29 | (230) | 6.6 | 105 | ---- | 5.9 | 2.50 |
| 11 | 410 | 12.1 | 29 | (245) | 6.4 | 107 | ---- | 5.2 | 2.50 |
| 12 | 420 | 12.0 | 30 | <250 | 6.5 | 109 | ---- | 4.4 | 2.50 |
| 13 | 420 | 11.75 | 30 | 225 | 6.3 | 109 | ---- | | 2.50 |
| 14 | 410 | 11.7 | 29 | (235) | 6.2 | 109 | ---- | | 2.50 |
| 15 | 405 | 11.2 | 30 | 230 | 6.0 | 109 | 4.00 | 4.0 | 2.50 |
| 16 | 400 | 10.6 | 31 | (240) | (5.8) | 109 | 3.65 | 4.5 | 2.55 |
| 17 | 395 | 10.2 | 31 | <260 | --- | 107 | 3.20 | 4.7 | 2.55 |
| 18 | --- | 9.0 | 31 | <270 | | 111 | 2.60 | 3.8 | 2.50 |
| 19 | | 9.4 | 30 | (320) | | --- | ---- | 2.8 | 2.35 |
| 20 | | 9.45 | 30 | <385 | | | | 3.0 | 2.25 |
| 21 | | 9.7 | 29 | <410 | | | | 4.4 | 2.25 |
| 22 | | 9.85 | 30 | <400 | | | | 5.0 | 2.32 |
| 23 | | >9.85 | 30 | <380 | | | | 5.6 | 2.35 |

Time: 75.0°W
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds

Table 62

San Salvador I. (24.1°N, 74.5°W) November 1958*

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.25 | 20 | 240 | | | | | 3.00 |
| 01 | | 5.65 | 20 | 230 | | | | | 3.00 |
| 02 | | 4.85 | 20 | 240 | | | | | 2.80 |
| 03 | | 4.5 | 19 | <265 | | | | | 2.60 |
| 04 | | 4.45 | 20 | <295 | | | | | 2.60 |
| 05 | | 4.4 | 19 | <280 | | | | 2.2 | 2.70 |
| 06 | | 5.8 | 20 | 260 | | --- | ---- | | 2.95 |
| 07 | | 10.0 | 19 | 235 | | 121 | 2.35 | | 3.20 |
| 08 | | 12.45 | 18 | 235 | | 109 | 3.10 | | 3.12 |
| 09 | | 13.2 | 17 | 230 | | 109 | 3.55 | 3.9 | 3.05 |
| 10 | | >13.15 | 18 | 230 | | 108 | 3.80 | 4.0 | 3.00 |
| 11 | | >12.95 | 18 | 220 | | 106 | 3.90 | 4.1 | 2.85 |
| 12 | | 12.95 | 18 | 220 | | 105 | 4.00 | 4.2 | 2.78 |
| 13 | | 12.8 | 19 | 230 | | 105 | 3.85 | 4.1 | 2.75 |
| 14 | | 12.8 | 19 | 235 | | 105 | 3.75 | 4.0 | 2.70 |
| 15 | | 12.4 | 18 | 235 | | 109 | 3.35 | 4.0 | 2.68 |
| 16 | | 12.1 | 20 | 240 | | 109 | 2.70 | 3.8 | 2.75 |
| 17 | | 11.9 | 20 | 240 | | <151 | 1.92 | 3.0 | 2.80 |
| 18 | | 10.7 | 20 | 225 | | | | 2.4 | 2.80 |
| 19 | | 9.45 | 20 | 240 | | | | 2.4 | 2.80 |
| 20 | | 9.0 | 19 | 240 | | | | 2.2 | 2.85 |
| 21 | | 8.25 | 20 | 240 | | | | 2.2 | 2.98 |
| 22 | | 7.3 | 20 | 240 | | | | 2.4 | 2.92 |
| 23 | | 6.75 | 20 | 240 | | | | 2.2 | 2.95 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.
*Observations taken 10th through 30th only.

Table 63

Concepcion, Chile (36.6°S, 73.0°W) November 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 11.0 | 26 | 320 | | | | 2.8 | 2.52 |
| 01 | | 11.45 | 26 | 300 | | | | 2.3 | 2.65 |
| 02 | | 10.3 | 26 | 280 | | | | 2.2 | 2.65 |
| 03 | | 9.6 | 25 | 280 | | | | 1.9 | 2.50 |
| 04 | | 9.4 | 25 | 320 | | | | 1.8 | 2.50 |
| 05 | | 10.0 | 25 | 260 | | 119 | 2.20 | 2.4 | 2.48 |
| 06 | | 11.3 | 25 | 235 | | 109 | 2.90 | 3.4 | 2.72 |
| 07 | | 11.8 | 25 | 230 | | 105 | 3.45 | 4.2 | 2.55 |
| 08 | | 12.2 | 27 | (220) | | 105 | 3.80 | 4.2 | 2.50 |
| 09 | --- | 12.6 | 27 | <220 | --- | 108 | 4.05 | 4.6 | 2.50 |
| 10 | (420) | 13.1 | 27 | (220) | (6.8) | 109 | ---- | 4.5 | 2.50 |
| 11 | 420 | 13.4 | 28 | <235 | 6.0 | 109 | ---- | | 2.55 |
| 12 | 415 | 13.4 | 28 | <240 | 6.5 | 111 | ---- | | 2.50 |
| 13 | 405 | 13.45 | 28 | (230) | 6.7 | 111 | ---- | 4.7 | 2.55 |
| 14 | 405 | 13.1 | 28 | <230 | 6.4 | 111 | (4.20) | | 2.55 |
| 15 | (420) | 12.35 | 26 | (230) | (6.2) | 109 | 3.95 | 4.4 | 2.52 |
| 16 | (415) | 11.65 | 26 | <245 | --- | 106 | 3.55 | 4.0 | 2.55 |
| 17 | --- | 11.7 | 26 | 250 | | 109 | 3.00 | 4.0 | 2.60 |
| 18 | | 11.05 | 26 | <275 | | (114) | 2.20 | 3.8 | 2.50 |
| 19 | | 11.0 | 28 | <335 | | --- | ---- | 3.7 | 2.42 |
| 20 | | 10.75 | 28 | 370 | | | | 4.0 | 2.35 |
| 21 | | 10.95 | 28 | 370 | | | | 3.4 | 2.40 |
| 22 | | 11.3 | 28 | 360 | | | | 2.7 | 2.40 |
| 23 | | 11.5 | 28 | 345 | | | | 2.7 | 2.50 |

Time: 75.0°W
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds

Table 64

Byrd Station (80.0°S, 120.0°W) November 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | 445 | 6.3 | 25 | 325 | --- | (129) | 2.00 | | 2.40 |
| 01 | 470 | 6.75 | 26 | 305 | --- | 121 | 2.65 | | 2.30 |
| 02 | <500 | 6.4 | 22 | 290 | --- | 116 | 2.95 | | 2.35 |
| 03 | <490 | 6.4 | 24 | 270 | --- | 110 | 2.65 | 2.7 | 2.40 |
| 04 | (510) | 6.7 | 25 | 260 | --- | <117 | 2.65 | | 2.40 |
| 05 | --- | 6.3 | 28 | 260 | --- | 112 | 2.80 | | 2.50 |
| 06 | --- | 6.3 | 26 | 255 | --- | 113 | >2.90 | | 2.50 |
| 07 | <545 | 6.5 | 28 | 245 | --- | 109 | 3.00 | | 2.50 |
| 08 | --- | 7.0 | 29 | 245 | --- | 107 | 3.00 | | 2.55 |
| 09 | (495) | 7.0 | 30 | 235 | --- | 109 | 3.00 | | 2.50 |
| 10 | (505) | 7.15 | 26 | 235 | --- | 109 | 3.22 | | 2.50 |
| 11 | --- | 7.3 | 27 | 235 | --- | 107 | 3.20 | | 2.50 |
| 12 | (460) | 7.5 | 30 | 235 | --- | 107 | 3.20 | | 2.50 |
| 13 | (460) | 7.75 | 28 | 235 | 4.5 | 105 | 3.10 | | 2.50 |
| 14 | (495) | 7.9 | 26 | 240 | 4.6 | 107 | 3.10 | | 2.45 |
| 15 | 495 | 8.0 | 29 | 250 | 4.5 | 107 | 3.00 | | 2.45 |
| 16 | (495) | 7.95 | 28 | 255 | --- | 109 | 3.00 | | 2.45 |
| 17 | (470) | 8.0 | 28 | 260 | 4.8 | 109 | 2.90 | | 2.40 |
| 18 | 480 | 7.7 | 27 | 270 | 5.3 | 111 | >2.70 | | 2.35 |
| 19 | 430 | 7.3 | 21 | 275 | --- | 115 | 2.85 | | 2.38 |
| 20 | (460) | 7.2 | 21 | 290 | --- | 117 | 2.75 | 3.3 | 2.35 |
| 21 | 450 | 7.0 | 22 | 285 | --- | 115 | 2.70 | 3.3 | 2.30 |
| 22 | 490 | 6.9 | 21 | 310 | --- | 114 | 2.98 | 3.0 | 2.30 |
| 23 | 450 | 7.0 | 23 | 300 | --- | <131 | 2.00 | | 2.35 |

Time: 120.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 65

Concepcion, Chile (36.6°S, 73.0°W) October 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 11.5 | 30 | 300 | | | | | 2.68 |
| 01 | | 11.35 | 30 | 295 | | | | | 2.70 |
| 02 | | 10.75 | 30 | 200 | | | | | 2.75 |
| 03 | | 9.15 | 30 | 260 | | | | | 2.65 |
| 04 | | 8.8 | 30 | 260 | | | | | 2.50 |
| 05 | | 9.55 | 30 | 280 | | <165 | 1.80 | | 2.60 |
| 06 | | 11.3 | 30 | 235 | | 114 | 2.65 | | 2.90 |
| 07 | | 12.55 | 30 | 230 | | 109 | 3.28 | | 2.90 |
| 08 | | 13.45 | 30 | 230 | | 105 | 3.62 | | 2.80 |
| 09 | | 14.1 | 30 | 225 | | 109 | 3.90 | | 2.65 |
| 10 | --- | 14.4 | 31 | 225 | | 107 | ---- | 4.2 | 2.60 |
| 11 | --- | 14.7 | 30 | (220) | --- | 109 | ---- | | 2.60 |
| 12 | 400 | 14.0 | 31 | (230) | 7.2 | 109 | ---- | | 2.55 |
| 13 | 410 | 14.9 | 31 | 225 | 7.2 | 109 | ---- | | 2.50 |
| 14 | 390 | 15.1 | 29 | 225 | --- | 109 | 3.95 | | 2.55 |
| 15 | 380 | 15.0 | 29 | 235 | --- | 111 | 3.70 | | 2.55 |
| 16 | --- | 14.6 | 29 | 245 | | 111 | 3.35 | | 2.60 |
| 17 | | 14.2 | 30 | 255 | | 113 | 2.75 | 3.1 | 2.62 |
| 18 | | 13.45 | 30 | 280 | | --- | ---- | 3.0 | 2.65 |
| 19 | | 12.65 | 30 | 305 | | | | 2.3 | 2.55 |
| 20 | | 11.9 | 30 | 330 | | | | 2.2 | 2.40 |
| 21 | | 11.9 | 30 | 335 | | | | | 2.45 |
| 22 | | >11.8 | 29 | 330 | | | | | 2.50 |
| 23 | | 11.7 | 30 | 310 | | | | | 2.60 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 66

Byrd Station (80.0°S, 120.0°W) October 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | --- | 6.0 | 21 | <395 | | --- | ---- | >3.0 | 2.38 |
| 01 | --- | 6.2 | 23 | 365 | | --- | ---- | 2.8 | 2.35 |
| 02 | --- | 6.2 | 25 | 370 | --- | --- | ---- | 3.5 | 2.30 |
| 03 | --- | 6.2 | 27 | 325 | --- | --- | ---- | 3.4 | 2.50 |
| 04 | --- | 6.6 | 26 | <300 | --- | (122) | ---- | 3.0 | 2.52 |
| 05 | --- | 6.0 | 27 | (270) | --- | (121) | 2.35 | | 2.60 |
| 06 | --- | 7.0 | 28 | 260 | --- | <119 | 2.58 | | 2.65 |
| 07 | --- | 7.2 | 29 | 250 | --- | 115 | 2.72 | | 2.65 |
| 08 | --- | 7.05 | 30 | 245 | --- | 111 | 2.80 | | 2.70 |
| 09 | --- | 8.3 | 31 | 240 | --- | 111 | 2.95 | | 2.70 |
| 10 | --- | 8.7 | 29 | 240 | --- | 111 | 3.00 | | 2.65 |
| 11 | --- | 9.85 | 28 | 240 | --- | 111 | 3.00 | | 2.70 |
| 12 | --- | 10.0 | 28 | 240 | --- | 111 | 3.00 | | 2.70 |
| 13 | --- | 9.9 | 27 | 240 | --- | 111 | 2.95 | | 2.70 |
| 14 | --- | 9.8 | 27 | 250 | --- | 111 | 2.90 | | 2.70 |
| 15 | --- | 9.5 | 26 | 255 | --- | 113 | 2.80 | | 2.65 |
| 16 | --- | 8.75 | 26 | 275 | --- | 117 | 2.80 | | 2.68 |
| 17 | (600) | 8.4 | 27 | 290 | --- | <120 | 2.90 | | 2.65 |
| 18 | --- | 7.7 | 25 | 290 | --- | 119 | 2.68 | | 2.42 |
| 19 | --- | 7.9 | 23 | 300 | --- | (123) | (2.50) | 3.2 | 2.50 |
| 20 | --- | 7.95 | 28 | 295 | --- | <127 | 2.30 | 3.3 | 2.45 |
| 21 | --- | >7.0 | 21 | 315 | | --- | ---- | 3.0 | 2.35 |
| 22 | --- | 7.0 | 23 | 350 | | <130 | ---- | 3.0 | 2.40 |
| 23 | --- | 7.0 | 18 | 350 | | --- | ---- | >2.3 | 2.45 |

Time: 120.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 67

Cape Canaveral, Florida (28.4°N, 80.6°W) March 1958

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 7.9 | 29 | <205 | | | | | 2.62 |
| 01 | | 7.9 | 29 | <280 | | | | | 2.65 |
| 02 | | 7.6 | 29 | <285 | | | | | 2.65 |
| 03 | | 7.1 | 29 | <275 | | | | | 2.65 |
| 04 | | 6.9 | 29 | <280 | | | | | 2.60 |
| 05 | | 6.6 | 29 | <280 | | | | | 2.60 |
| 06 | | 6.8 | 29 | <205 | | | | | 2.65 |
| 07 | | 9.0 | 29 | 240 | | --- | ---- | | 3.00 |
| 08 | | 11.55 | 28 | 230 | | 111 | 3.00 | | 3.00 |
| 09 | | 12.9 | 29 | 225 | | 111 | 3.50 | | 3.00 |
| 10 | | 13.55 | 28 | 220 | | 109 | 3.75 | | 2.90 |
| 11 | | 14.0 | 20 | 220 | | 109 | (3.98) | | 2.75 |
| 12 | | 14.1 | 28 | <220 | | 109 | (4.00) | | 2.70 |
| 13 | | 14.1 | 27 | 225 | | 109 | 4.05 | | 2.65 |
| 14 | | 14.0 | 27 | 230 | | 111 | (4.00) | | 2.65 |
| 15 | | 13.85 | 28 | 230 | | 111 | 3.90 | | 2.65 |
| 16 | | 13.4 | 28 | 235 | | 111 | 3.55 | | 2.65 |
| 17 | | 13.0 | 29 | 240 | | 113 | 3.05 | 3.2 | 2.70 |
| 18 | | 12.6 | 29 | 240 | | <121 | (2.25) | 2.7 | 2.75 |
| 19 | | 11.85 | 20 | <235 | | | | | 2.75 |
| 20 | | (10.0) | 29 | <240 | | | | | (2.75) |
| 21 | | 9.1 | 29 | <260 | | | | | 2.70 |
| 22 | | 8.6 | 29 | <280 | | | | | 2.70 |
| 23 | | 8.2 | 29 | <280 | | | | | 2.65 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 68

Budapest, Hungary (47.4°N, 19.2°E) May 1957

| Time | h'F2 | foF2—Count | | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | 320 | 7.1 | 29 | | | | | | 2.84 |
| 01 | 330 | 7.1 | 31 | | | | | | 2.79 |
| 02 | 315 | 6.8 | 31 | | | | | | 2.86 |
| 03 | 320 | 6.7 | 31 | | | | | | 2.86 |
| 04 | 305 | 6.7 | 31 | | | | | | 2.92 |
| 05 | 270 | 7.1 | 29 | --- | --- | 130 | 2.2 | | 3.13 |
| 06 | 265 | 8.2 | 30 | 250 | 4.4 | 115 | 2.7 | 3.5 | 3.00 |
| 07 | 300 | 8.5 | 30 | 245 | 5.0 | 110 | 3.1 | 4.6 | 3.00 |
| 08 | 310 | 0.5 | 30 | 240 | 5.6 | 110 | 3.4 | 5.0 | 2.90 |
| 09 | 360 | 0.6 | 30 | 230 | 5.8 | 110 | 3.6 | 4.9 | 2.65 |
| 10 | 365 | 8.7 | 30 | 230 | 6.0 | 110 | 3.6 | 4.4 | 2.63 |
| 11 | 390 | 9.2 | 31 | 235 | 6.2 | 110 | 3.7 | 4.5 | 2.52 |
| 12 | 390 | 9.2 | 30 | 230 | 6.0 | 110 | 3.8 | | 2.52 |
| 13 | 390 | 9.5 | 30 | 230 | 6.2 | 110 | 3.7 | 4.6 | 2.50 |
| 14 | 380 | 9.6 | 27 | 240 | 6.0 | 110 | 3.6 | | 2.56 |
| 15 | 355 | 9.4 | 26 | 235 | 6.0 | 110 | 3.6 | | 2.67 |
| 16 | 340 | 9.1 | 28 | 240 | 5.7 | 110 | 3.4 | 4.6 | 2.74 |
| 17 | 315 | 0.6 | 27 | 250 | 5.3 | 115 | 3.0 | 4.4 | 2.90 |
| 18 | 290 | 8.6 | 26 | 255 | 4.4 | 120 | 2.6 | 4.0 | 2.95 |
| 19 | 280 | 8.5 | 31 | | | 125 | 2.3 | 3.1 | 3.10 |
| 20 | 270 | 0.5 | 29 | | | | | 3.4 | 3.13 |
| 21 | 230 | 8.3 | 31 | | | | | 2.9 | 3.04 |
| 22 | 300 | 8.0 | 28 | | | | | | 2.95 |
| 23 | 310 | 7.4 | 28 | | | | | | 2.92 |

Time: Local.
Sweep: 1.0 Mc to 20.0 Mc in 35 seconds.

Table 69

Freiburg, Germany (48.1°N, 7.0°E) September 1956

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.0 | 30 | 290 | | | | 1.6 | 2.50 |
| 01 | | 5.0 | 30 | 290 | | | | 1.4 | 2.55 |
| 02 | | 5.5 | 29 | 300 | | | | 1.4 | 2.50 |
| 03 | | 5.2 | 29 | (295) | | | | | 2.45 |
| 04 | | 5.0 | 28 | 290 | | | | 1.5 | 2.50 |
| 05 | | 4.7 | 28 | 200 | | | | 1.5 | 2.70 |
| 06 | --- | 6.1 | 29 | 250 | | 134 | 1.00 | | 3.00 |
| 07 | --- | 7.7 | 29 | 235 | ---- | 113 | 2.65 | | 3.05 |
| 08 | 320 | 0.8 | 30 | 230 | 4.80 | 107 | 3.05 | | 2.95 |
| 09 | 270 | 9.6 | 29 | 220 | 5.00 | 105 | 3.35 | 3.6 | 3.00 |
| 10 | 280 | 10.0 | 27 | 215 | ---- | 105 | 3.50 | 4.0 | 2.85 |
| 11 | 310 | 9.8 | 27 | 220 | 5.30 | 104 | 3.55 | 4.2 | 2.80 |
| 12 | 300 | 10.4 | 29 | 215 | 5.70 | 105 | 3.65 | 4.2 | 2.80 |
| 13 | 340 | 10.6 | 29 | 225 | ---- | 105 | 3.70 | 4.0 | 2.75 |
| 14 | --- | 10.2 | 29 | 220 | ---- | 105 | 3.60 | 3.8 | 2.00 |
| 15 | --- | 10.0 | 28 | 230 | ---- | 105 | 3.40 | | 2.80 |
| 16 | --- | 10.0 | 30 | 235 | ---- | 107 | 3.05 | | 2.05 |
| 17 | --- | 10.0 | 30 | 250 | | 113 | 2.60 | 2.9 | 2.90 |
| 18 | --- | 10.2 | 30 | 250 | | 119 | ---- | 2.7 | 2.90 |
| 19 | | 9.4 | 29 | 240 | | | | 2.6 | 2.95 |
| 20 | | 7.0 | 30 | 240 | | | | 2.6 | 2.80 |
| 21 | | 7.2 | 30 | 245 | | | | 2.4 | 2.70 |
| 22 | | 6.7 | 30 | 265 | | | | 2.3 | 2.60 |
| 23 | | 6.2 | 29 | 300 | | | | 1.0 | 2.55 |

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 70

Freiburg, Germany (48.1°N, 7.8°E) August 1956

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.4 | 30 | 295 | | | | 2.4 | 2.55 |
| 01 | | 6.2 | 29 | 295 | | | | 1.6 | 2.60 |
| 02 | | 5.7 | 29 | 300 | | | | 1.6 | 2.55 |
| 03 | | 5.5 | 29 | 300 | | | | 1.7 | 2.50 |
| 04 | | 5.4 | 30 | 290 | | | | 1.6 | 2.60 |
| 05 | | 5.5 | 28 | 270 | | --- | 1.40 | 1.7 | 2.80 |
| 06 | (260) | 6.4 | 29 | 250 | ---- | 113 | 2.40 | 2.6 | 3.00 |
| 07 | 310 | 7.2 | 29 | 235 | 4.60 | 107 | 2.85 | 3.8 | 2.95 |
| 08 | 290 | 7.9 | 29 | 220 | 4.80 | 105 | 3.25 | 3.8 | 2.90 |
| 09 | 310 | 8.4 | 26 | 220 | 5.20 | 103 | 3.50 | 4.0 | 2.90 |
| 10 | 325 | 8.4 | 30 | 210 | 5.40 | 103 | 3.65 | 4.3 | 2.85 |
| 11 | 340 | 8.8 | 23 | 210 | 5.50 | 105 | 3.70 | 4.5 | 2.80 |
| 12 | 350 | 0.6 | 28 | 205 | 5.50 | 103 | 3.70 | 4.4 | 2.75 |
| 13 | 350 | 8.4 | 24 | 220 | 5.60 | 103 | 3.80 | 4.2 | 2.75 |
| 14 | 350 | 8.2 | 31 | 220 | 5.60 | 105 | 3.80 | | 2.75 |
| 15 | 345 | 8.4 | 24 | 225 | 5.50 | 105 | 3.60 | | 2.75 |
| 16 | 330 | 8.6 | 28 | 230 | 5.15 | 103 | 3.30 | | 2.80 |
| 17 | 290 | 8.4 | 24 | 235 | ---- | 107 | 2.95 | 4.3 | 2.85 |
| 18 | 275 | 8.6 | 31 | 250 | ---- | 109 | 2.40 | 3.6 | 2.90 |
| 19 | | 9.0 | 27 | 250 | | --- | 1.55 | 2.8 | 2.90 |
| 20 | | 8.4 | 31 | 245 | | | | 3.6 | 2.90 |
| 21 | | 7.8 | 26 | 250 | | | | 3.6 | 2.75 |
| 22 | | 7.0 | 31 | 260 | | | | 2.6 | 2.65 |
| 23 | | 6.6 | 29 | 200 | | | | 2.7 | 2.60 |

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 71

Freiburg, Germany (48.1°N, 7.8°E) July 1956

| Time | h'F2 | foF2—Count | | h'F | foF1 | h'E | foE | foEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | 6.8 | 31 | 285 | | | | 1.8 | 2.60 |
| 01 | | 6.8 | 30 | 295 | | | | 2.0 | 2.60 |
| 02 | | 6.3 | 30 | (280) | | | | 1.5 | 2.60 |
| 03 | | 5.8 | 30 | 290 | | | | 1.5 | 2.65 |
| 04 | | 5.4 | 30 | 290 | | | | 2.0 | 2.65 |
| 05 | (335) | 5.8 | 28 | 250 | 3.35 | 123 | 1.95 | 2.4 | 2.80 |
| 06 | 290 | 6.6 | 30 | 235 | (4.25) | 109 | 2.60 | 2.9 | 2.85 |
| 07 | 310 | 6.8 | 30 | 220 | 4.50 | 103 | 3.00 | 3.3 | 2.85 |
| 08 | 350 | 7.0 | 30 | 220 | 4.85 | 102 | 3.30 | 4.0 | 2.85 |
| 09 | 360 | 7.4 | 29 | (205) | 5.20 | 101 | 3.50 | 4.2 | 2.80 |
| 10 | 350 | 7.4 | 31 | 210 | 5.30 | 101 | 3.70 | 4.1 | 2.80 |
| 11 | 360 | 7.8 | 27 | 205 | 5.40 | 101 | 3.80 | 4.2 | 2.75 |
| 12 | 355 | 7.6 | 30 | 210 | 5.50 | 101 | 3.80 | 3.9 | 2.75 |
| 13 | 370 | 7.5 | 29 | 215 | 5.45 | 101 | 3.80 | 4.2 | 2.80 |
| 14 | 360 | 7.5 | 30 | 210 | 5.30 | 103 | 3.75 | | 2.75 |
| 15 | 360 | 7.4 | 29 | 220 | 5.20 | 103 | 3.65 | | 2.75 |
| 16 | 340 | 7.4 | 29 | 220 | 5.10 | 104 | 3.45 | | 2.75 |
| 17 | 320 | 7.4 | 28 | 220 | 4.70 | 104 | 3.10 | 3.8 | 2.85 |
| 18 | 300 | 8.0 | 28 | 240 | 4.20 | 107 | 2.70 | 3.4 | 2.90 |
| 19 | 275 | 8.0 | 28 | 250 | ---- | 113 | 2.10 | 4.0 | 2.90 |
| 20 | | 8.0 | 31 | 250 | | | | 3.8 | 2.95 |
| 21 | | 7.6 | 29 | 255 | | | | 2.4 | 2.80 |
| 22 | | 7.4 | 31 | 270 | | | | 1.8 | 2.65 |
| 23 | | 6.8 | 30 | 280 | | | | 1.8 | 2.65 |

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 72*

Campbell I. (52.5°S, 169.2°E) March 1956

| Time | h'F2 | foF2—Count | | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|---|---|---|---|---|---|---|---|---|---|
| 00 | | | | | | | | | |
| 01 | | | | | | | | | |
| 02 | | | | | | | | | |
| 03 | | | | | | | | | |
| 04 | | | | | | | | | |
| 05 | 290 | 4.6 | 24 | | | --- | E | | 2.7 |
| 06 | 250 | 5.5 | 26 | --- | --- | 125 | 2.0 | | 3.0 |
| 07 | 250 | 6.5 | 28 | 230 | 3.7 | 110 | 2.5 | | 3.1 |
| 08 | 260 | 7.2 | 27 | 230 | 4.2 | 110 | 2.8 | | 3.1 |
| 09 | 290 | 8.2 | 24 | 230 | 4.5 | 100 | 3.2 | | 3.0 |
| 10 | 270 | 8.8 | 24 | 220 | 4.7 | 110 | 3.4 | | 2.9 |
| 11 | 280 | 8.7 | 27 | 230 | 4.8 | 110 | 3.4 | | 2.8 |
| 12 | 280 | 8.7 | 28 | 210 | 4.7 | 100 | 3.5 | | 2.8 |
| 13 | 290 | 9.5 | 29 | 230 | 4.7 | 110 | 3.4 | | 2.8 |
| 14 | 260 | 9.7 | 29 | 230 | 4.5 | 100 | 3.4 | | 2.8 |
| 15 | 250 | 9.5 | 29 | 230 | 4.3 | 100 | 3.1 | | 2.8 |
| 16 | 250 | 9.5 | 29 | 240 | 4.0 | 110 | 2.8 | | 2.9 |
| 17 | 250 | 9.6 | 25 | 240 | 3.7 | <120 | 2.2 | | 2.9 |
| 18 | 250 | 9.2 | 28 | --- | --- | --- | E | | 2.8 |
| 19 | 250 | 8.5 | 29 | | | --- | E | | 2.7 |
| 20 | 260 | 7.1 | 28 | | | | | | 2.6 |
| 21 | <260 | 6.2 | 28 | | | | | | 2.6 |
| 22 | <280 | 5.8 | 26 | | | | | | 2.5 |
| 23 | 300 | 5.8 | 26 | | | | | 3.3 | 2.5 |

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 5 minutes, manual operation.
*Observations taken on a 19-hour working schedule.

US COMM-NBS-BL

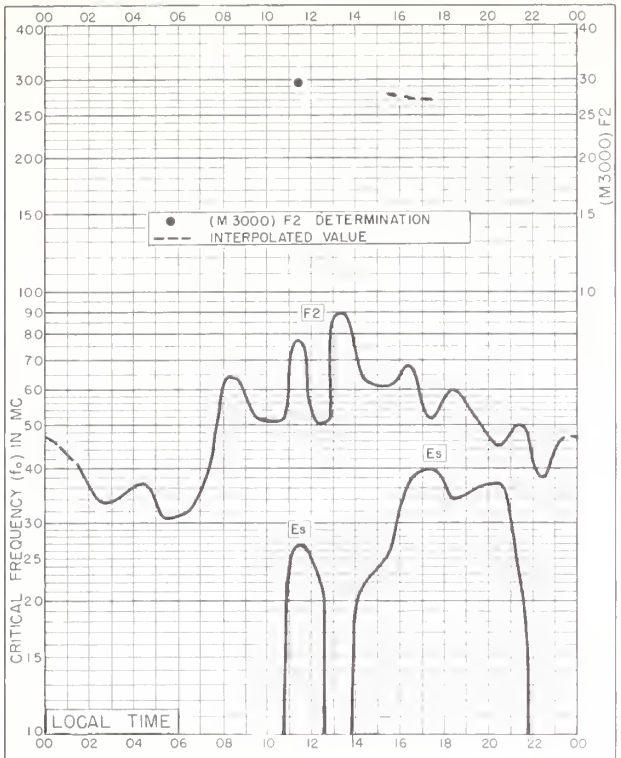



Fig. 1. THULE, GREENLAND
76.6°N, 68.7°W DECEMBER 1959

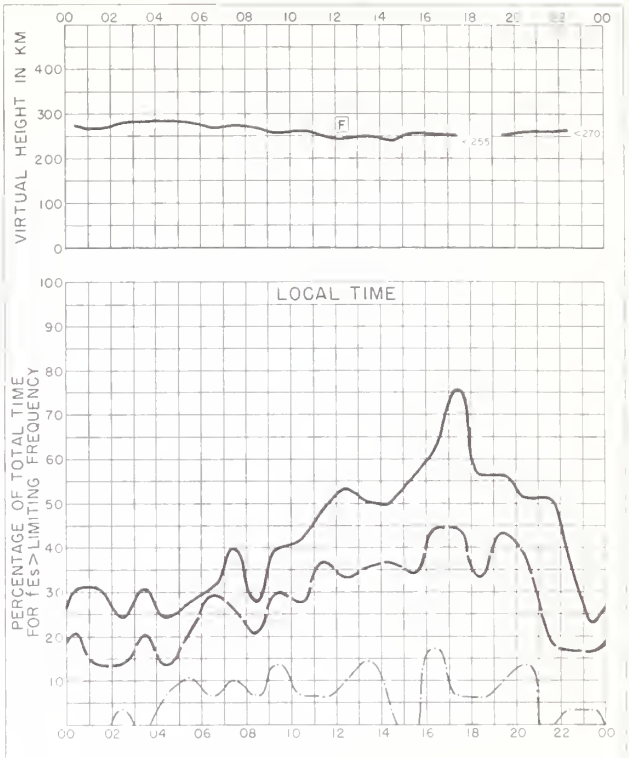



Fig. 2. THULE, GREENLAND DECEMBER 1959


Fig. 3. POINT BARROW, ALASKA
71.3°N, 156.8°W DECEMBER 1959

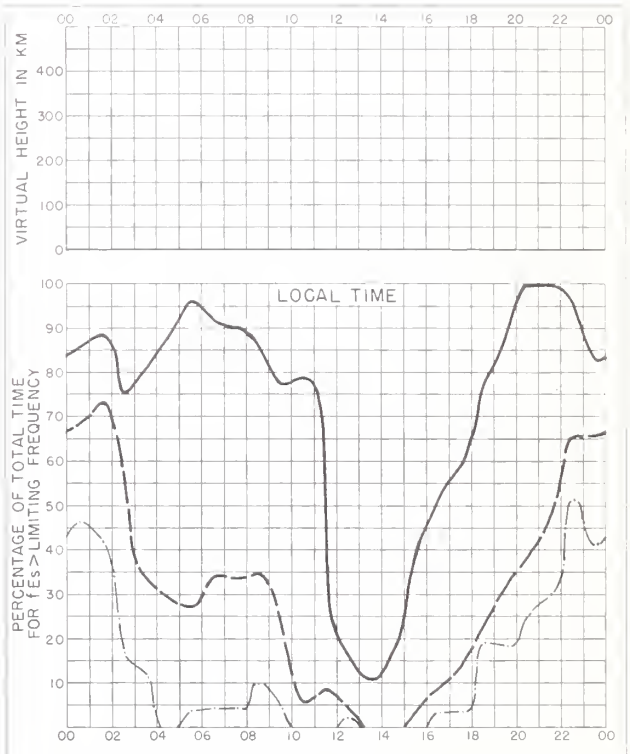



Fig. 4. POINT BARROW, ALASKA-DECEMBER 1959

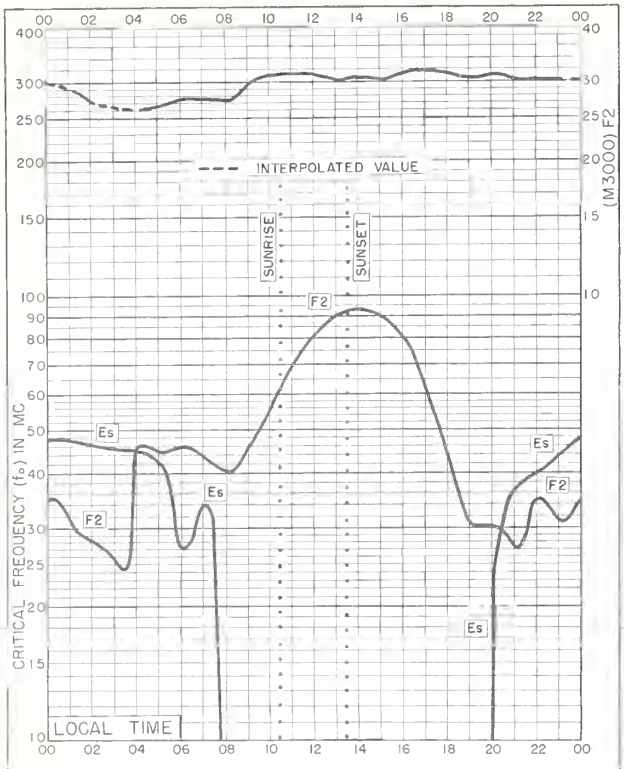



Fig. 5. FAIRBANKS, ALASKA
64.9°N, 147.8°W DECEMBER 1959

NBS 503

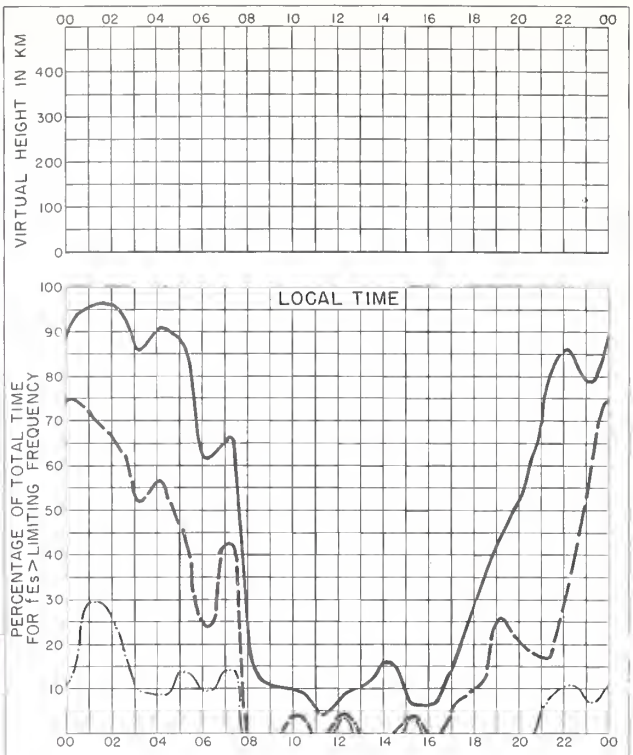



Fig. 6. FAIRBANKS, ALASKA DECEMBER 1959

NBS 490

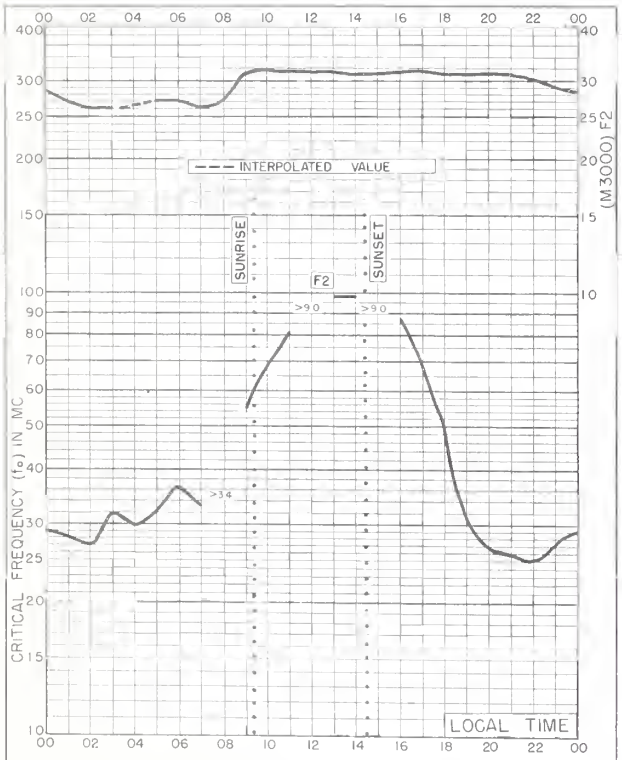



Fig. 7. ANCHORAGE, ALASKA
61.2°N, 149.9°W DECEMBER 1959

NBS 503

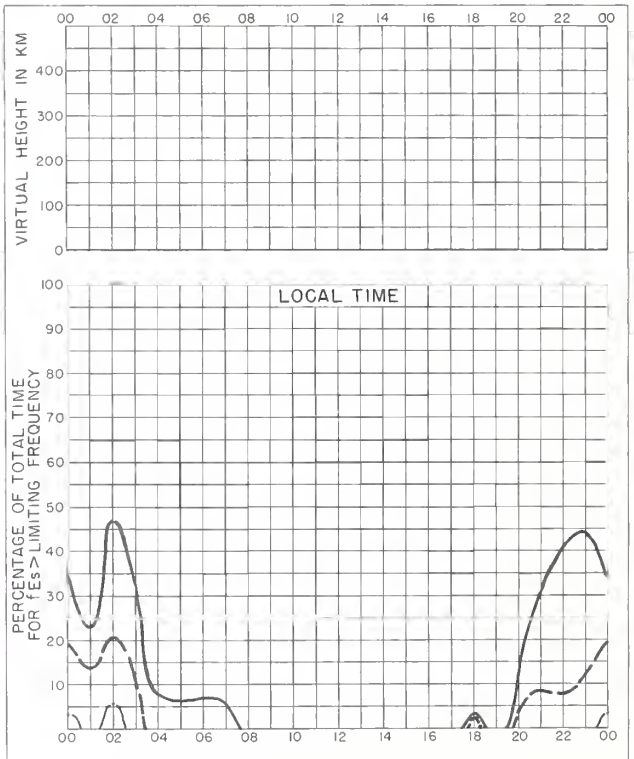



Fig. 8. ANCHORAGE, ALASKA DECEMBER 1959

NBS 490

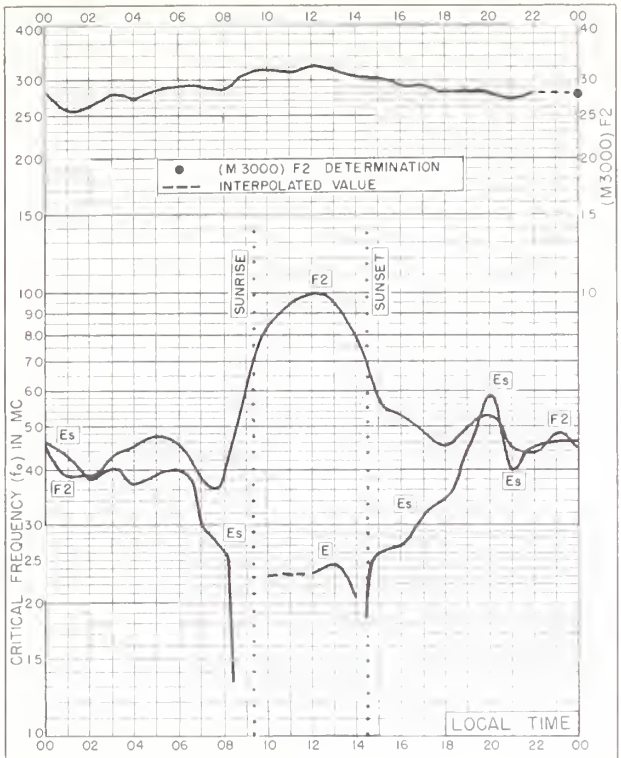



Fig. 9. NARSARSSUAK, GREENLAND
61.2°N, 45.4° W DECEMBER 1959

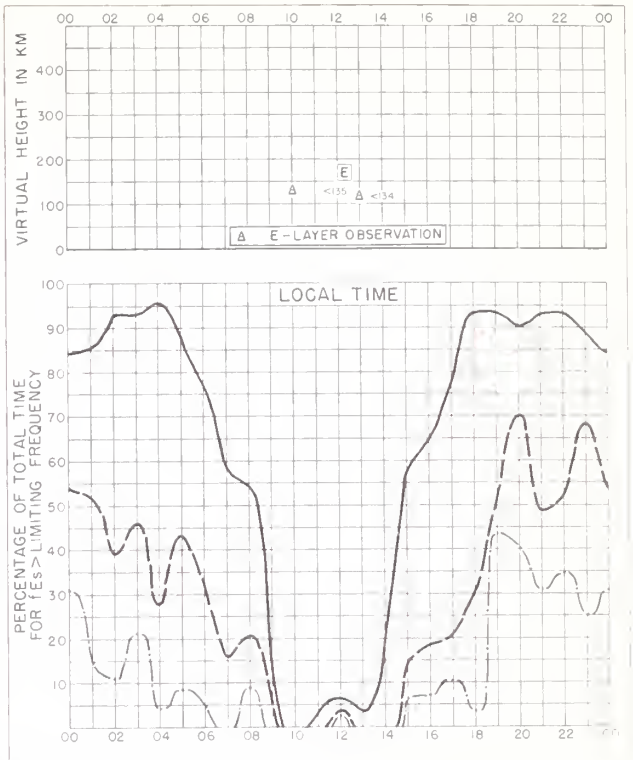



Fig 10. NARSARSSUAK, GREENLAND DECEMBER 1959

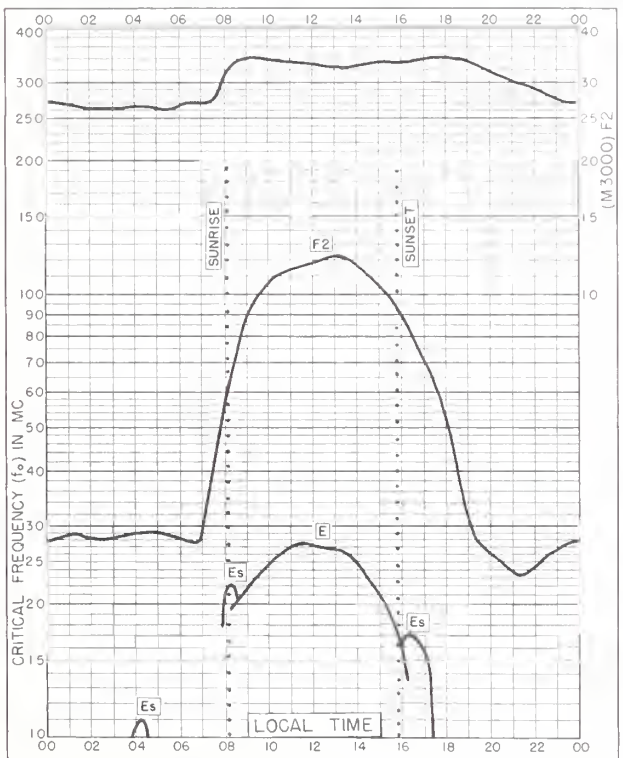



Fig. 11. ADAK, ALASKA
51.9°N, 176.6° W DECEMBER 1959

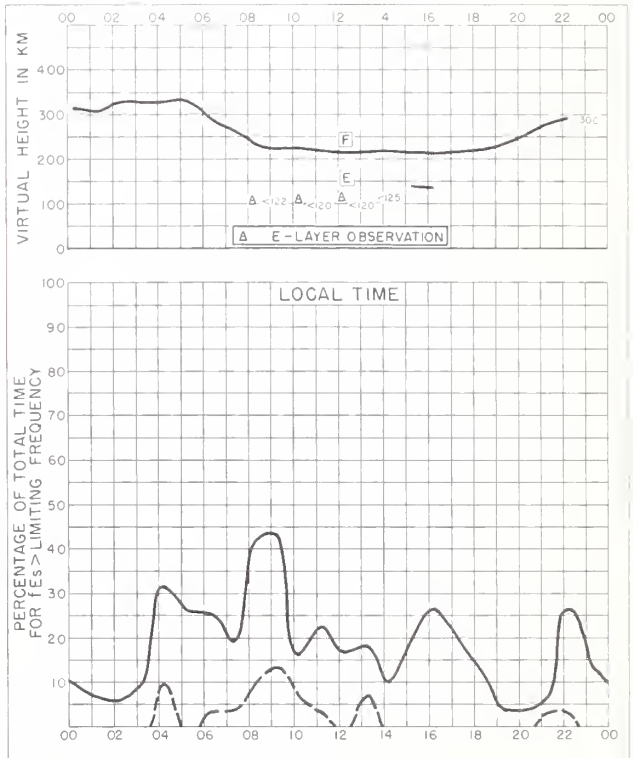



Fig. 12. ADAK, ALASKA DECEMBER 1959


Fig. 13. WASHINGTON, D.C.
38.7°N, 77.1°W DECEMBER 1959

NBS 503

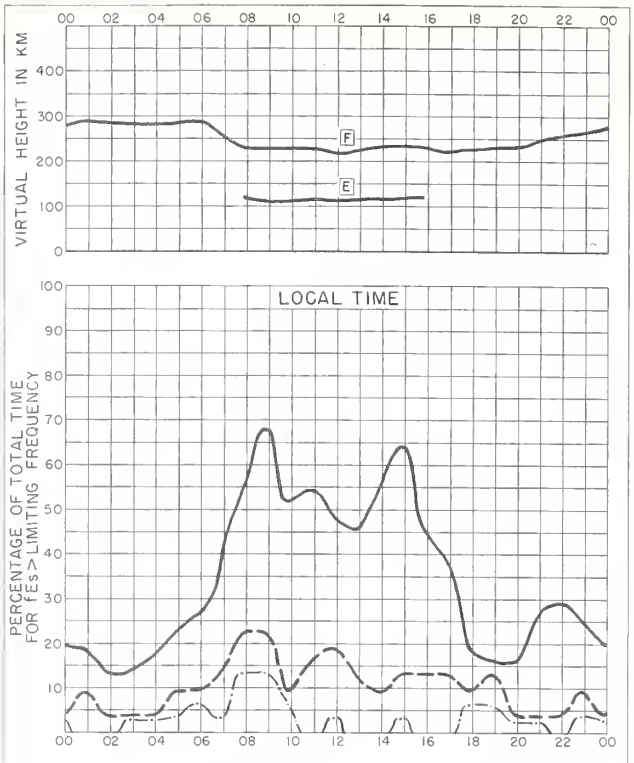



Fig. 14. WASHINGTON, D.C. DECEMBER 1959

NBS 490

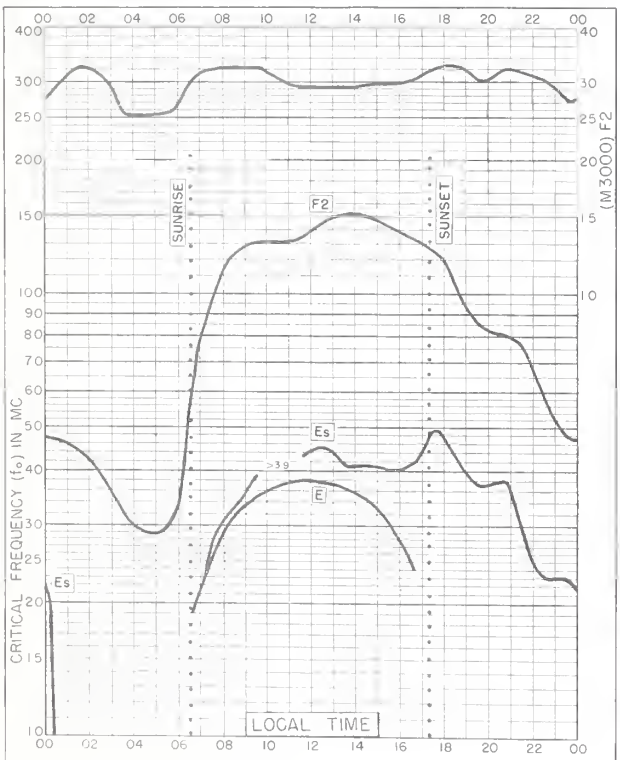



Fig. 15. MAUI, HAWAII
20.8°N, 156.5°W DECEMBER 1959

NBS 503

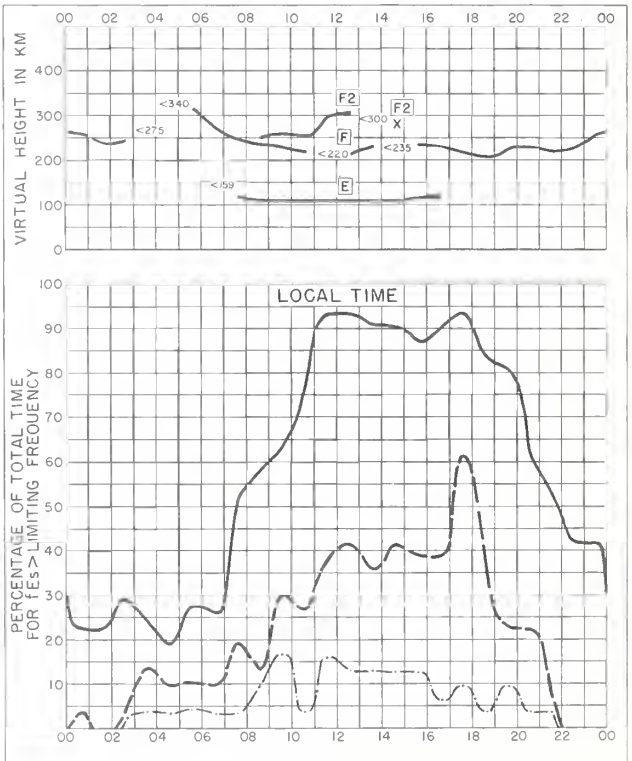



Fig. 16. MAUI, HAWAII DECEMBER 1959

NBS 490

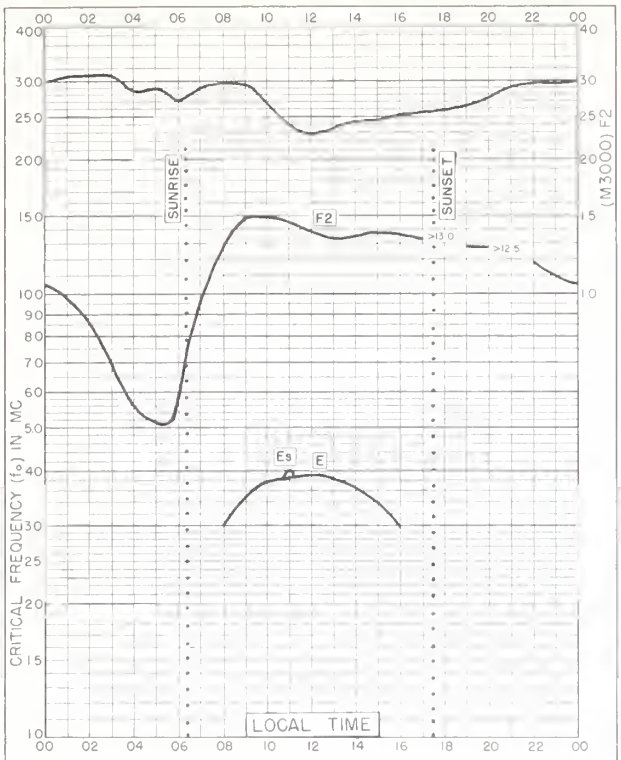



Fig. 17. BAGUIO, P. I.
16.4°N, 120.6°E DECEMBER 1959

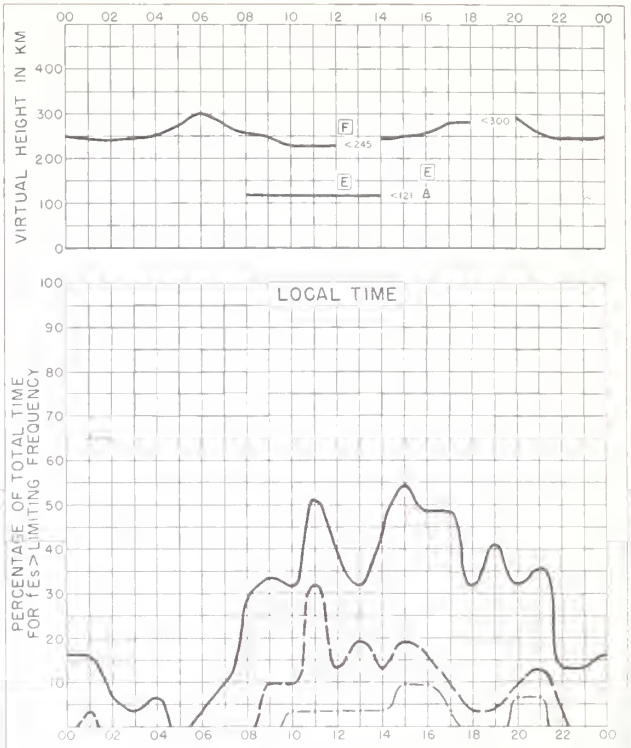



Fig. 18. BAGUIO, P. I. DECEMBER 1959

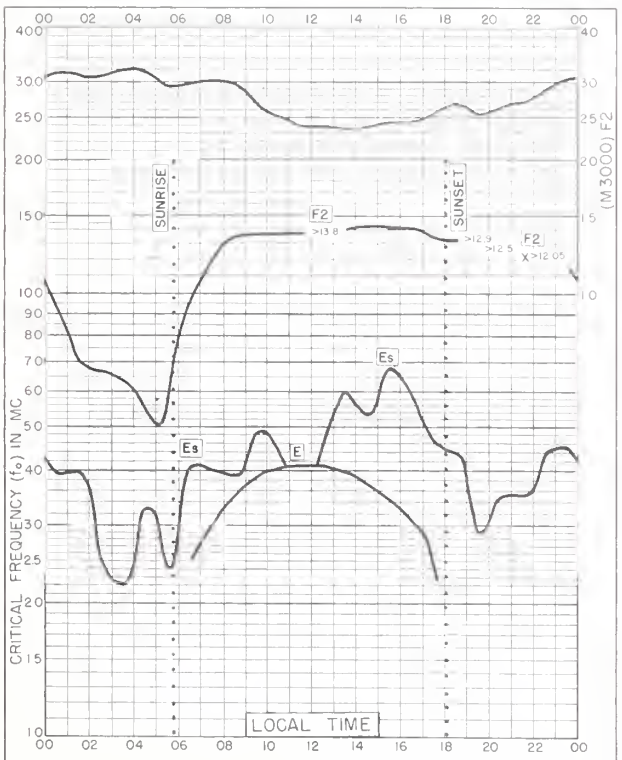



Fig. 19. TALARA, PERU
4.6°S, 81.3°W DECEMBER 1959

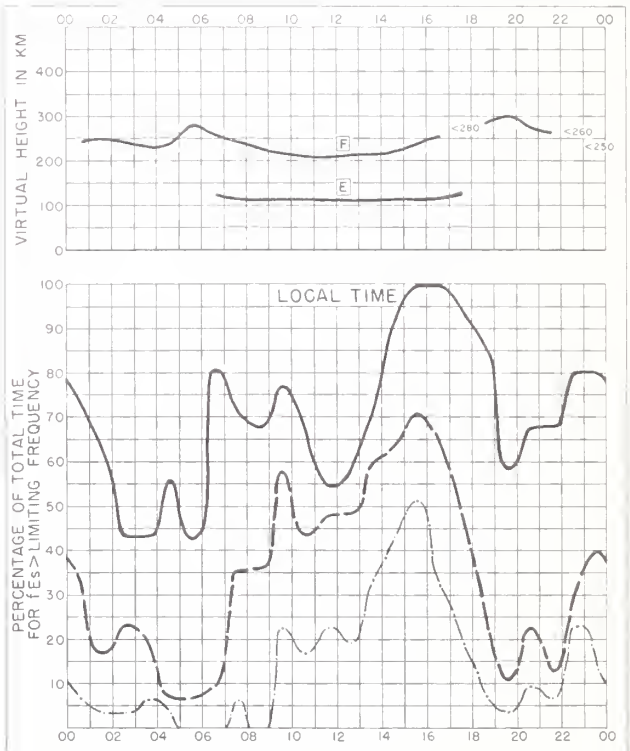



Fig. 20. TALARA, PERU DECEMBER 1959

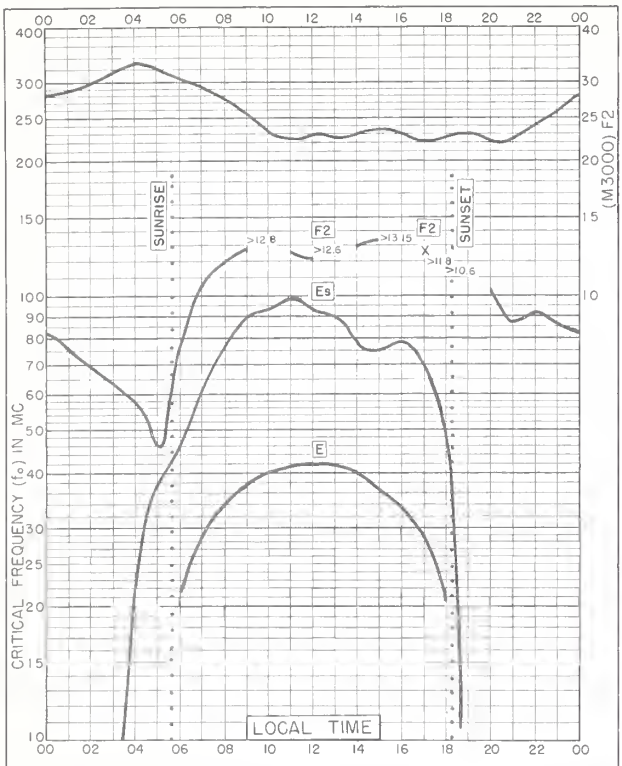



Fig. 21. HUANCAYO, PERU
12.0°S, 75.3°W DECEMBER 1959

NBS 503

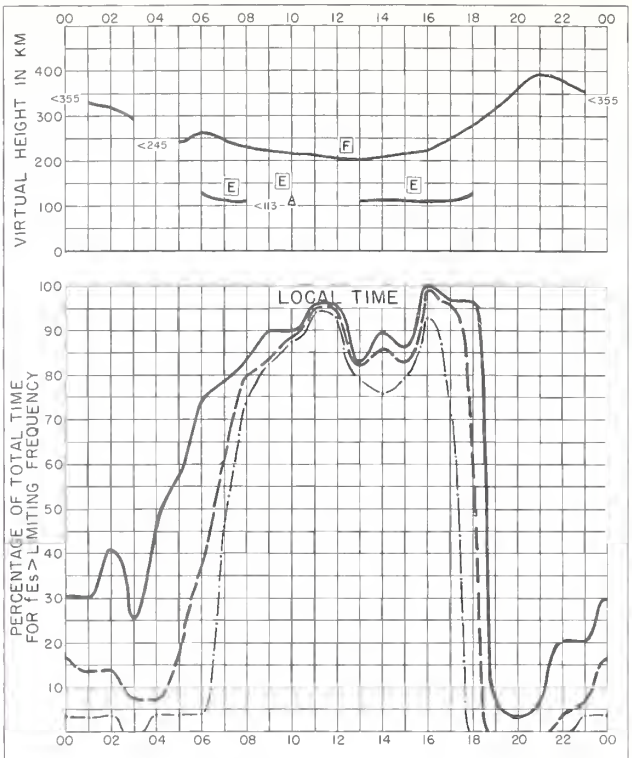



Fig. 22. HUANCAYO, PERU DECEMBER 1959

NBS 490

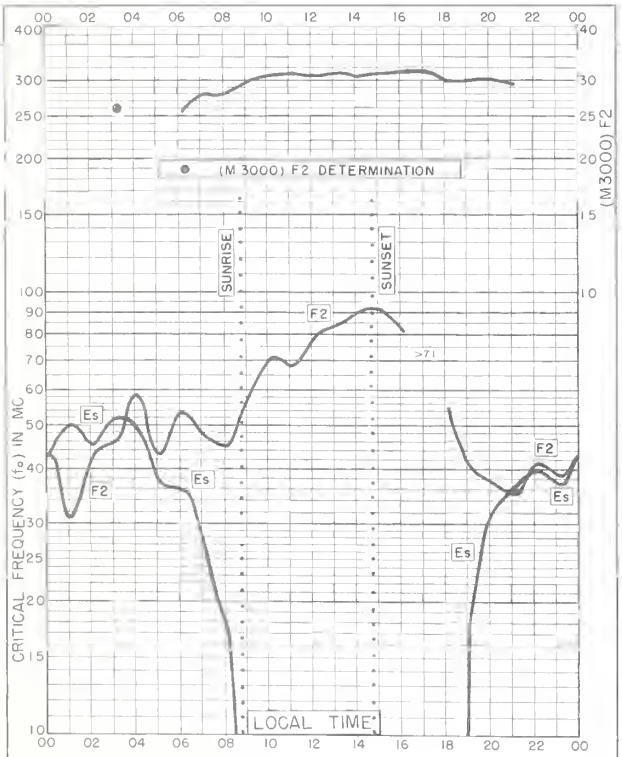



Fig. 23. FAIRBANKS, ALASKA
64.9°N, 147.8°W NOVEMBER 1959

NBS 503

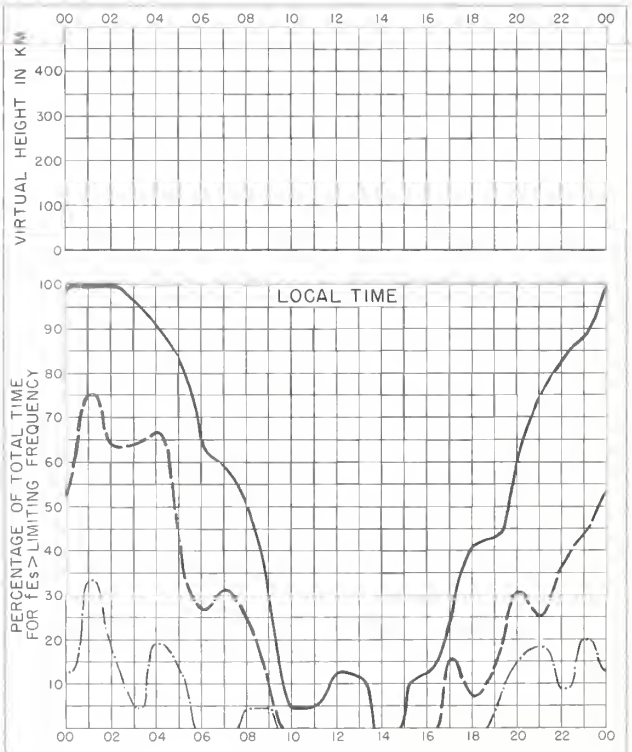



Fig. 24. FAIRBANKS, ALASKA NOVEMBER 1959

NBS 490

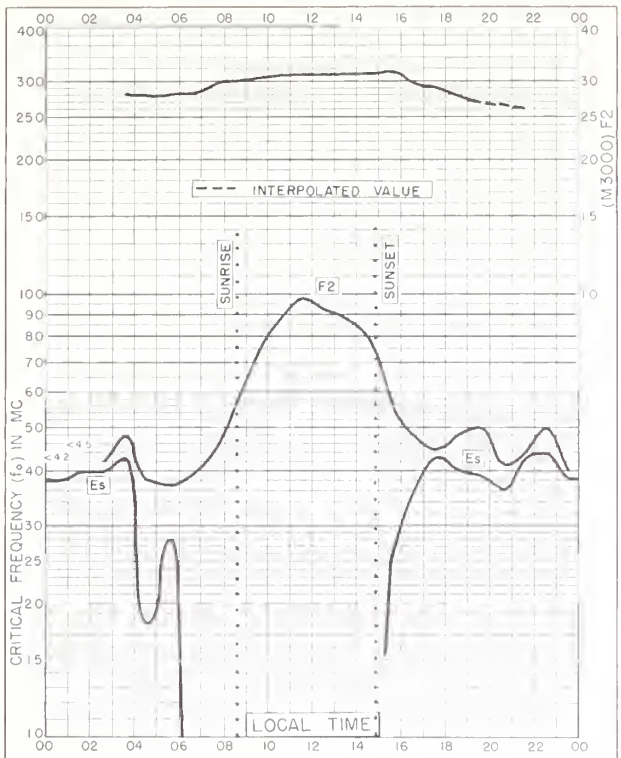



Fig. 25. REYKJAVIK, ICELAND
64.1°N, 21.8°W NOVEMBER 1959

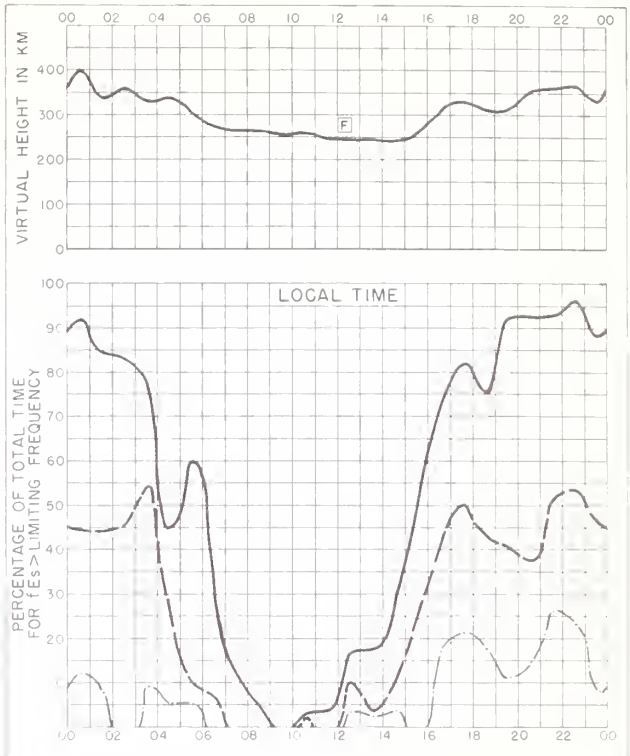



Fig. 26. REYKJAVIK, ICELAND NOVEMBER 1959


Fig. 27. NARSARSSUAK, GREENLAND
61.2°N, 45.4°W NOVEMBER 1959

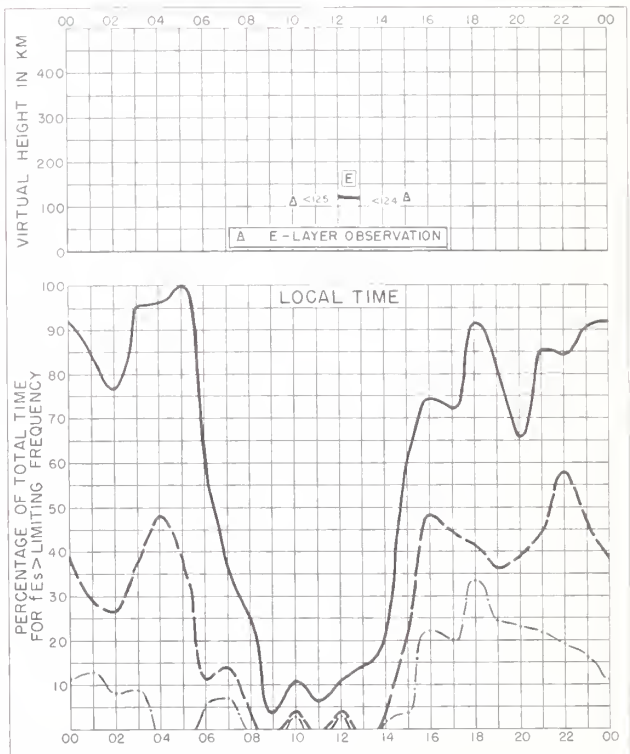



Fig. 28. NARSARSSUAK, GREENLAND NOVEMBER 1959


Fig. 29. BOULDER, COLORADO
40.0°N, 105.3°W NOVEMBER 1959

NBS 503

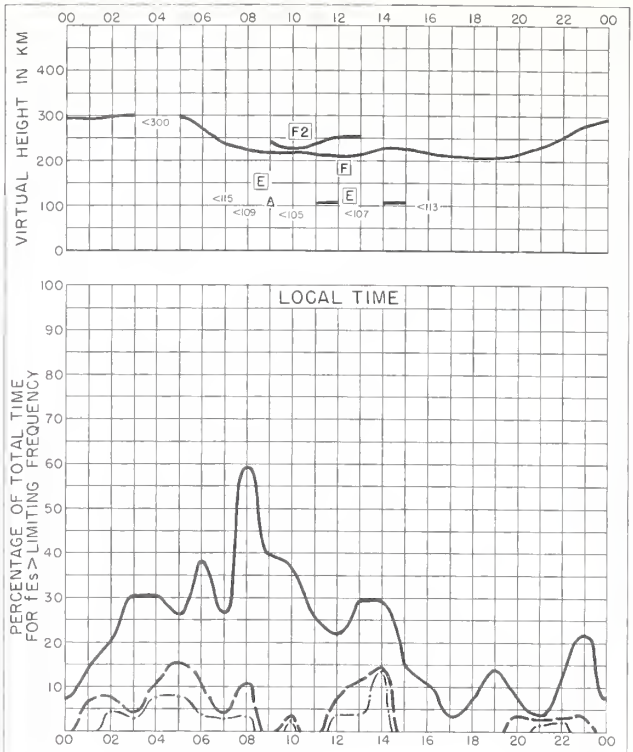



Fig. 30. BOULDER, COLORADO NOVEMBER 1959

NBS 490

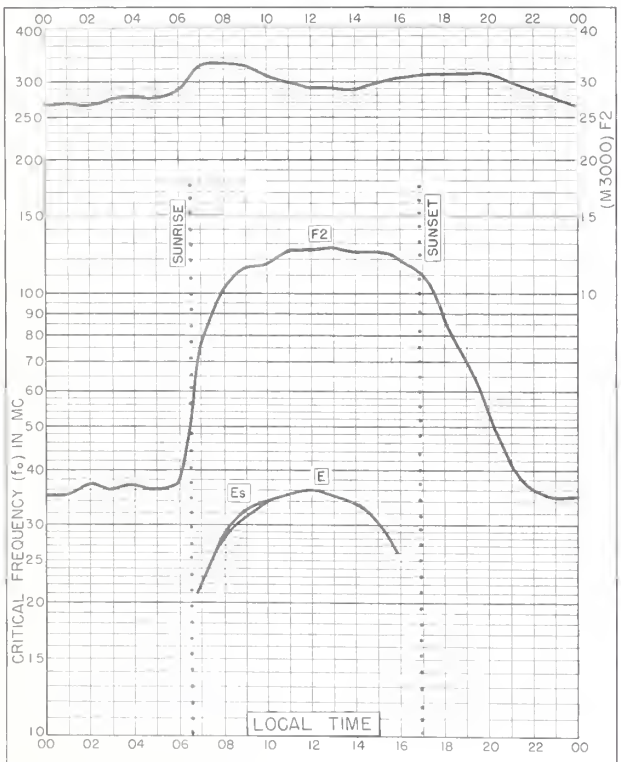



Fig. 31. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W NOVEMBER 1959

NBS 503

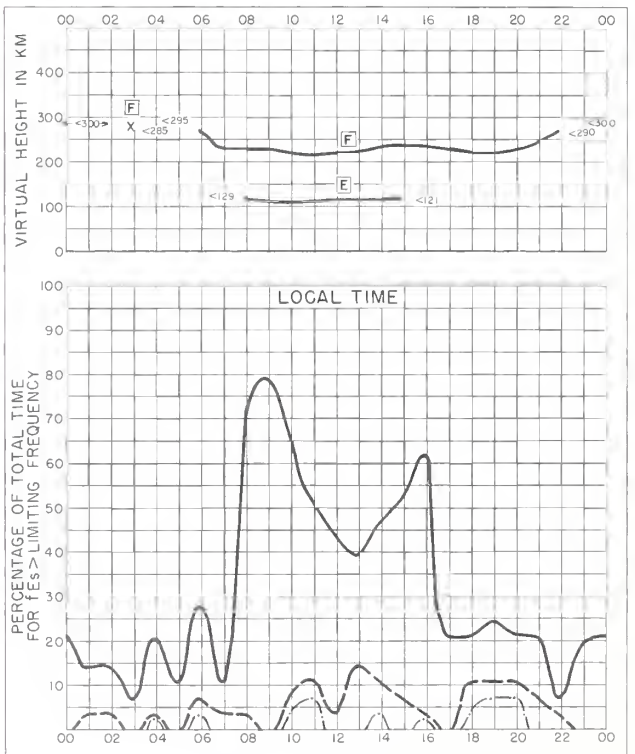



Fig. 32. WHITE SANDS, NEW MEXICO NOVEMBER 1959

NBS 490

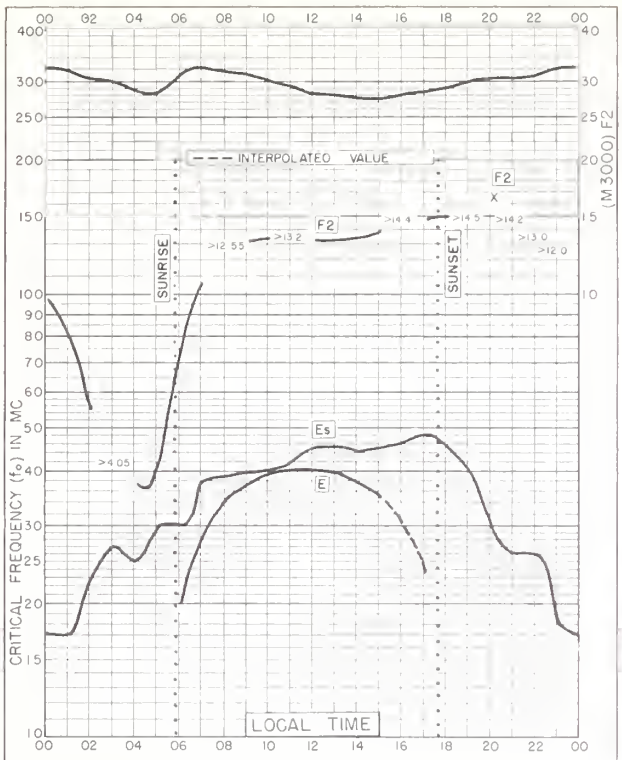



Fig. 33. BOGOTA, COLOMBIA
4.5°N, 74.2°W NOVEMBER 1959

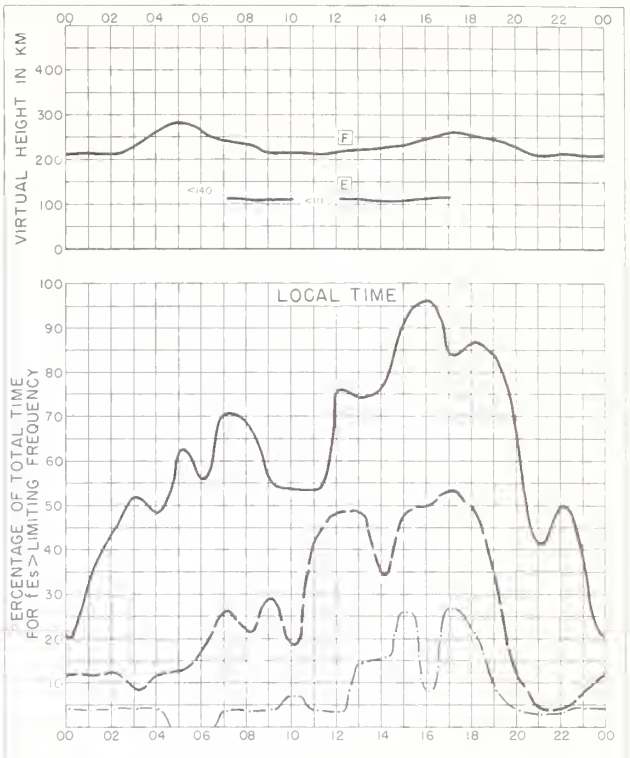



Fig. 34. BOGOTA, COLOMBIA NOVEMBER 1959

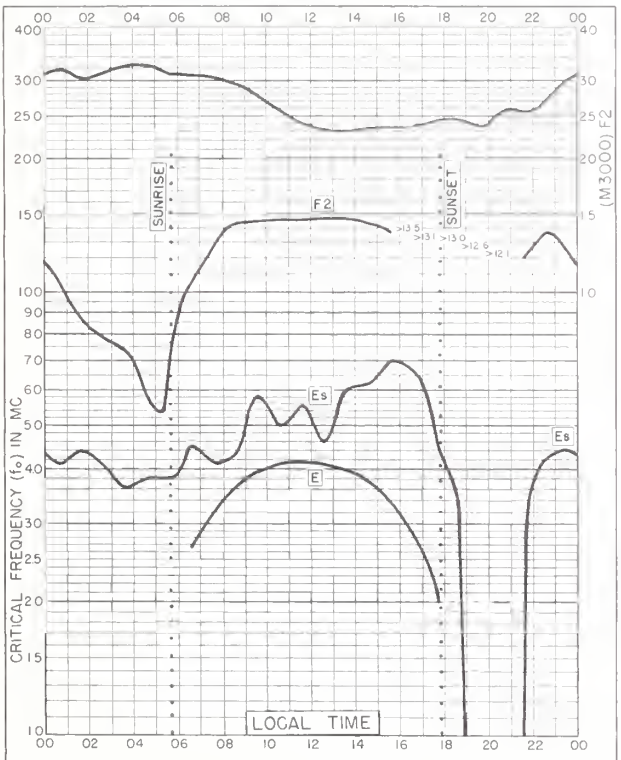



Fig. 35. TALARA, PERU
4.6°S, 81.3°W NOVEMBER 1959

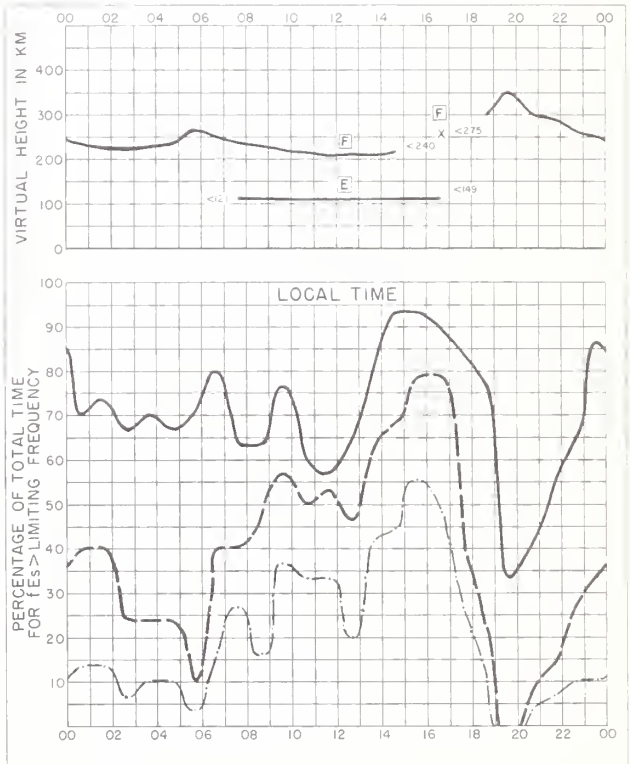



Fig. 36. TALARA, PERU NOVEMBER 1959

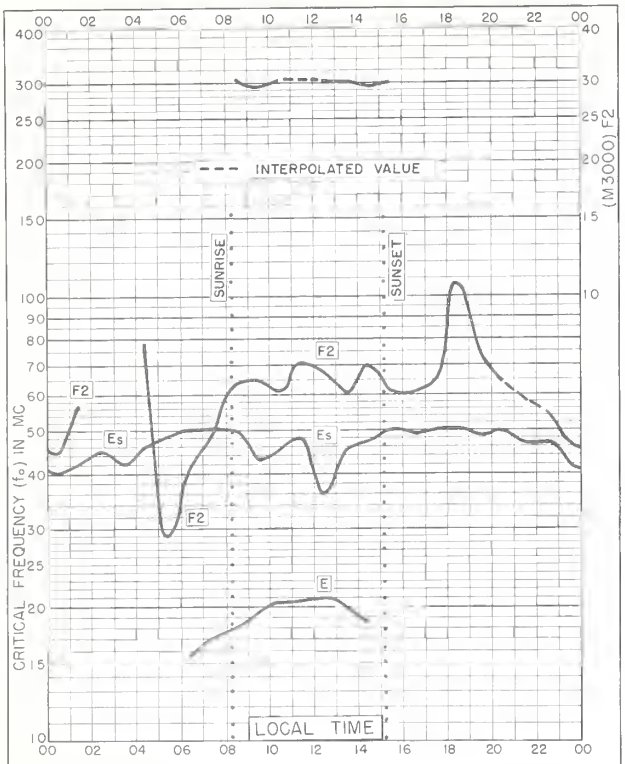



Fig. 37. THULE, GREENLAND
76.6°N, 68.7°W OCTOBER 1959

NBS 503

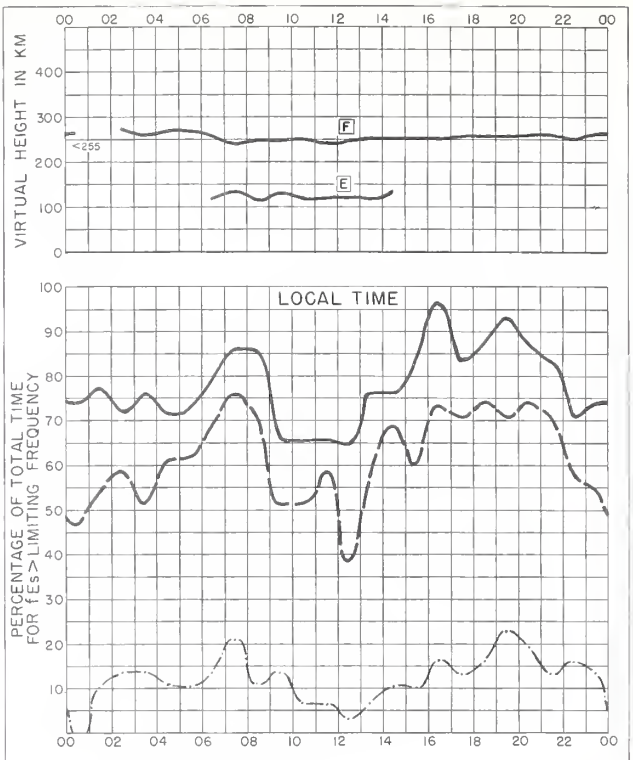



Fig. 38. THULE, GREENLAND OCTOBER 1959

NBS 490

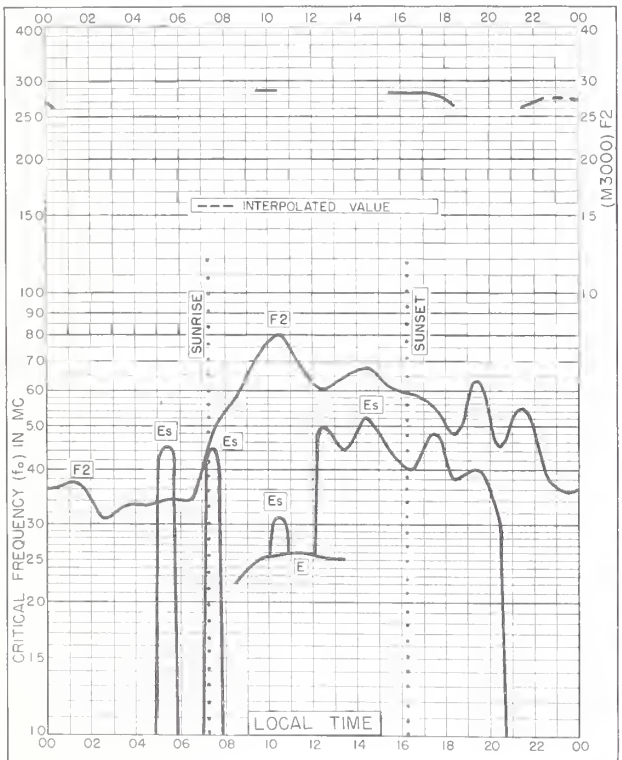



Fig. 39. GODHAVN, GREENLAND
69.3°N, 53.5°W OCTOBER 1959

NBS 503

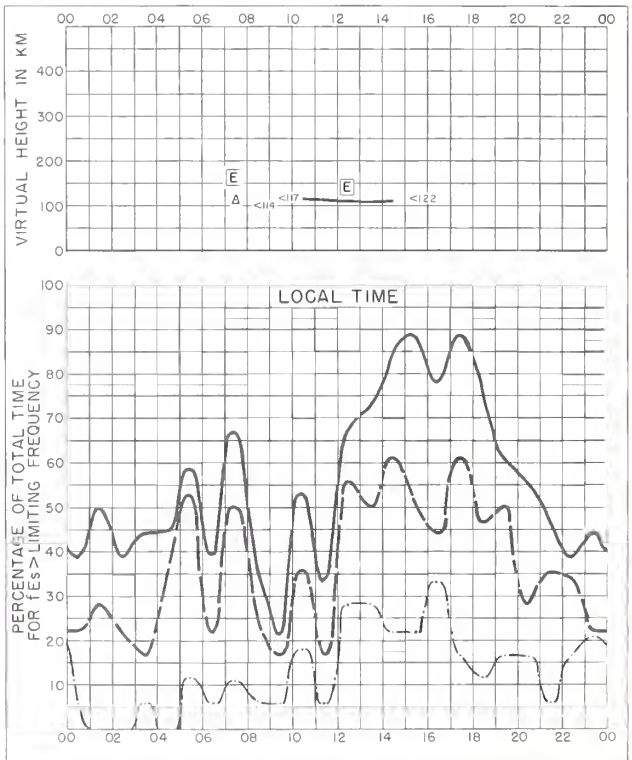



Fig 40. GODHAVN, GREENLAND OCTOBER 1959

NBS 490

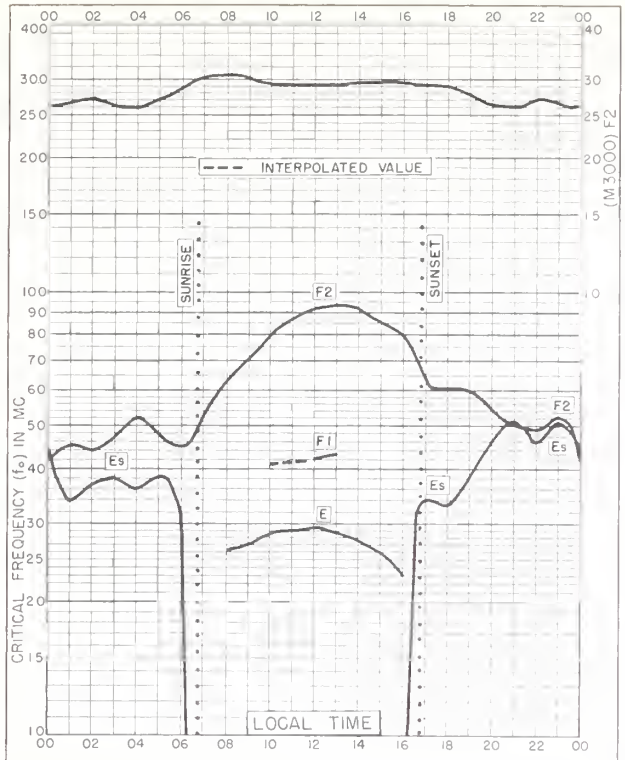



Fig. 41. NARSARSSUAK, GREENLAND
61.2°N, 45.4°W OCTOBER 1959

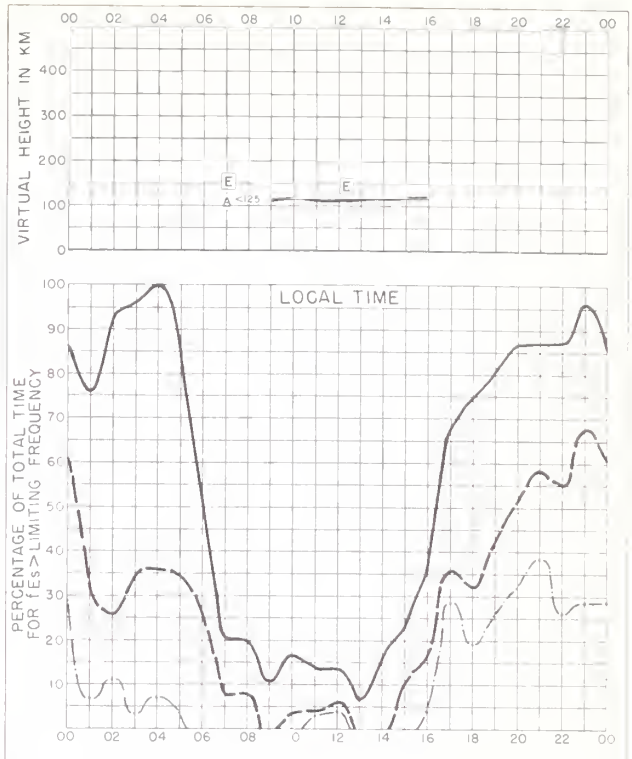



Fig. 42. NARSARSSUAK, GREENLAND OCTOBER 1959

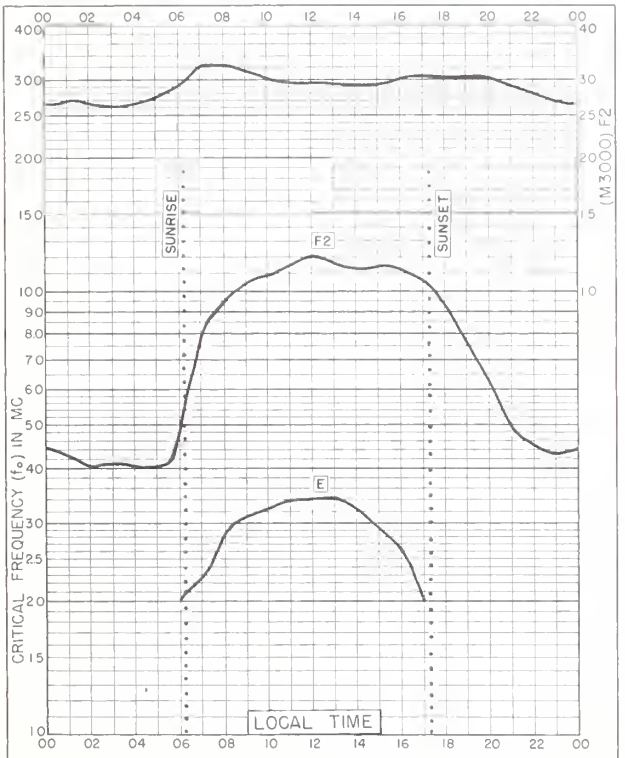



Fig. 43. BOULDER, COLORADO
40.0°N, 105.3°W OCTOBER 1959

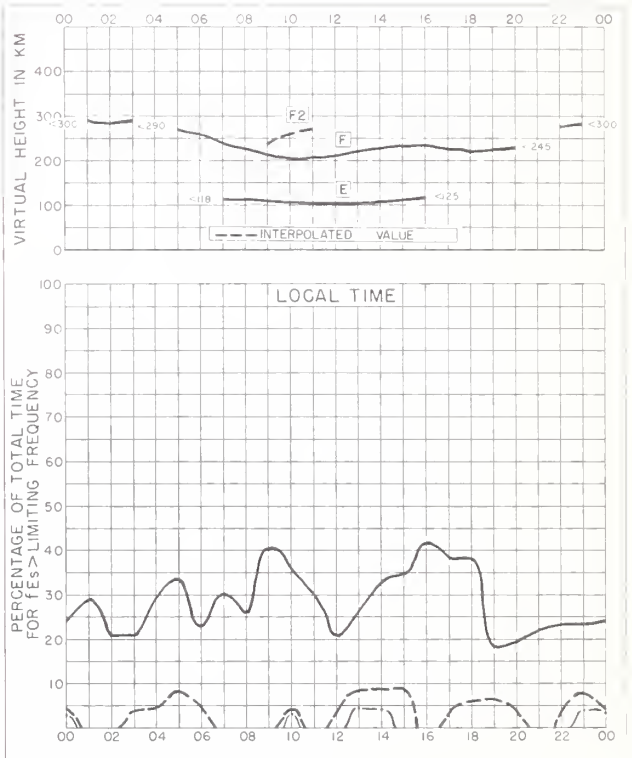



Fig. 44. BOULDER, COLORADO OCTOBER 1959

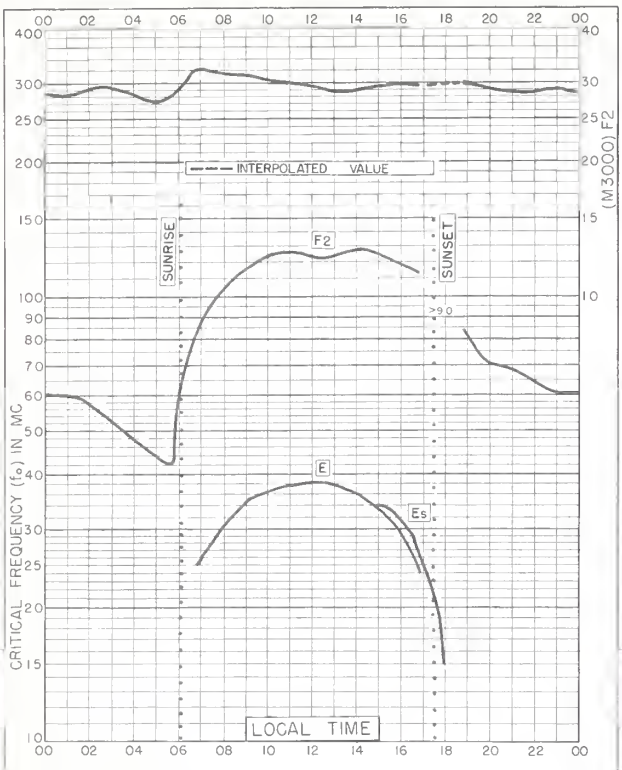



Fig. 45. GRAND BAHAMA I.
26.6°N, 78.2° W OCTOBER 1959

NBS 503

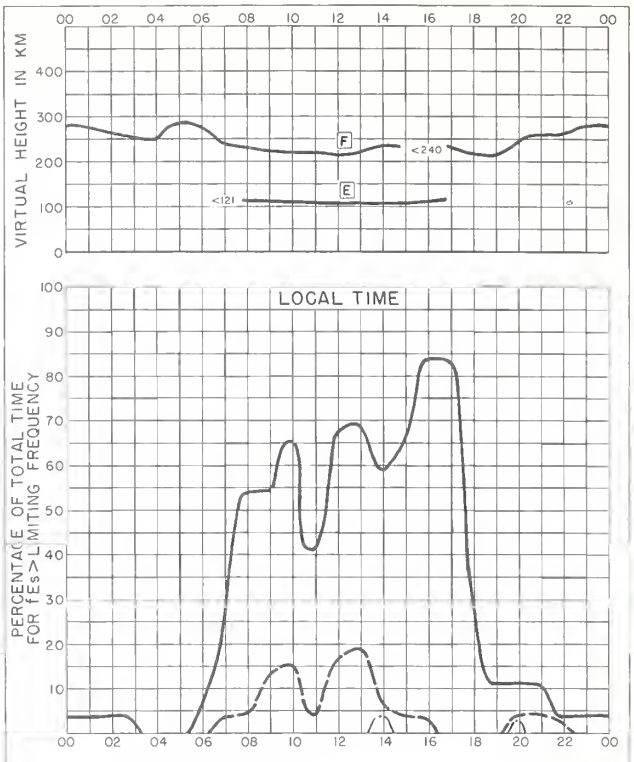



Fig. 46. GRAND BAHAMA I. OCTOBER 1959

NBS 490

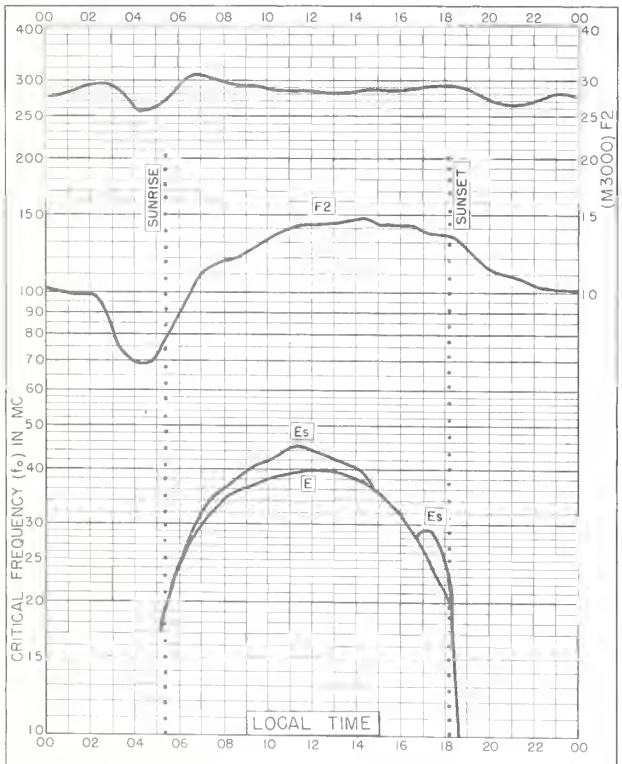



Fig. 47. CONCEPCION, CHILE
36.6°S, 73.0° W OCTOBER 1959

NBS 503

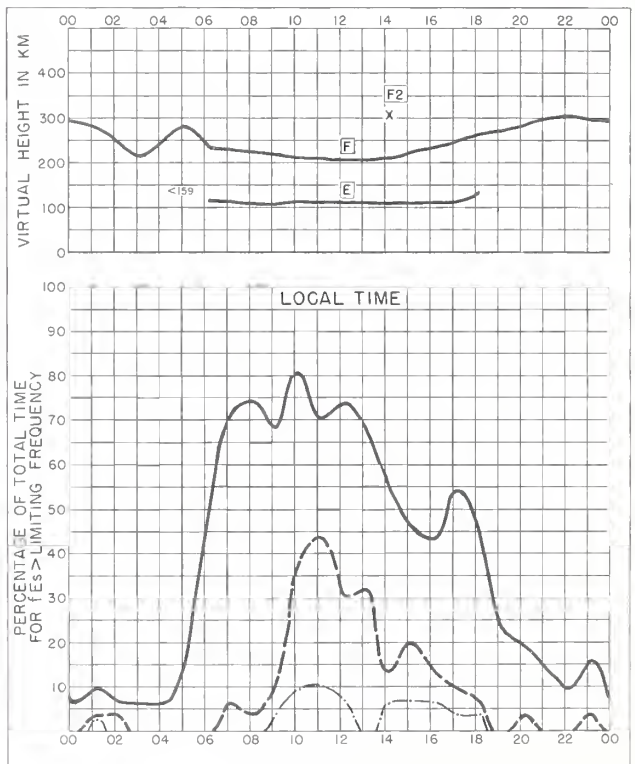



Fig. 48. CONCEPCION, CHILE OCTOBER 1959

NBS 490

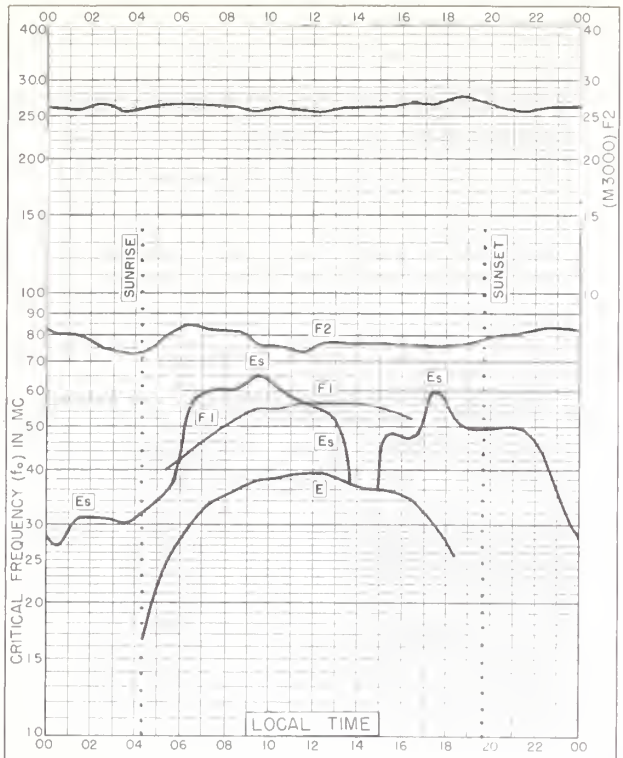



Fig. 49. WAKKANAI, JAPAN
45.4°N, 141.7°E JUNE 1959

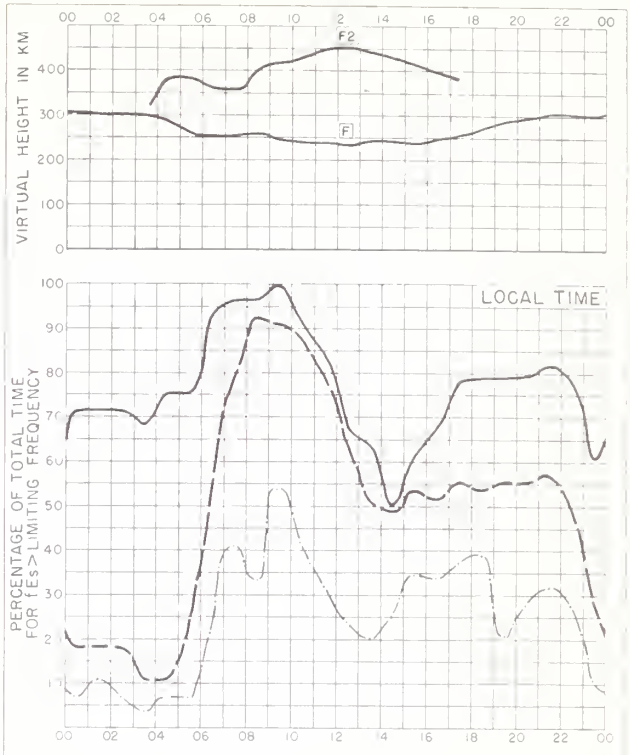



Fig. 50. WAKKANAI, JAPAN JUNE 1959

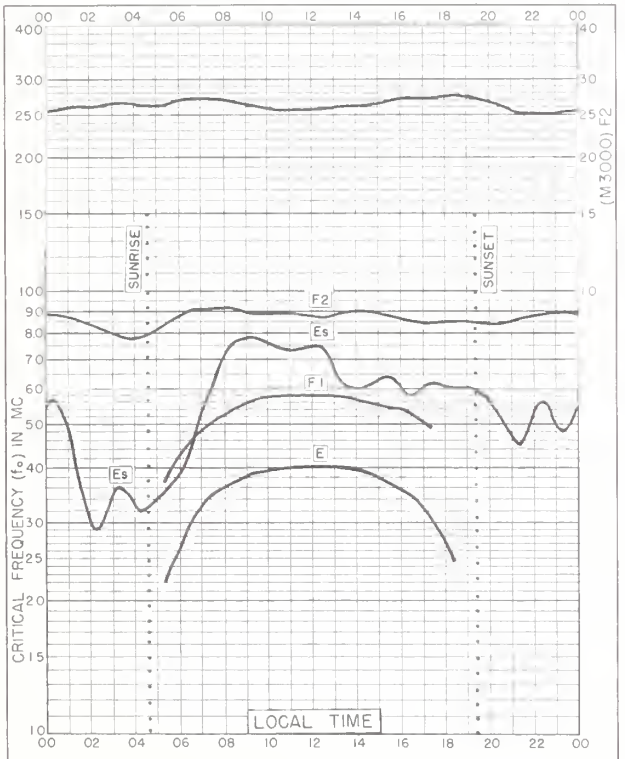



Fig. 51. AKITA, JAPAN
39.7°N, 140.1°E JUNE 1959

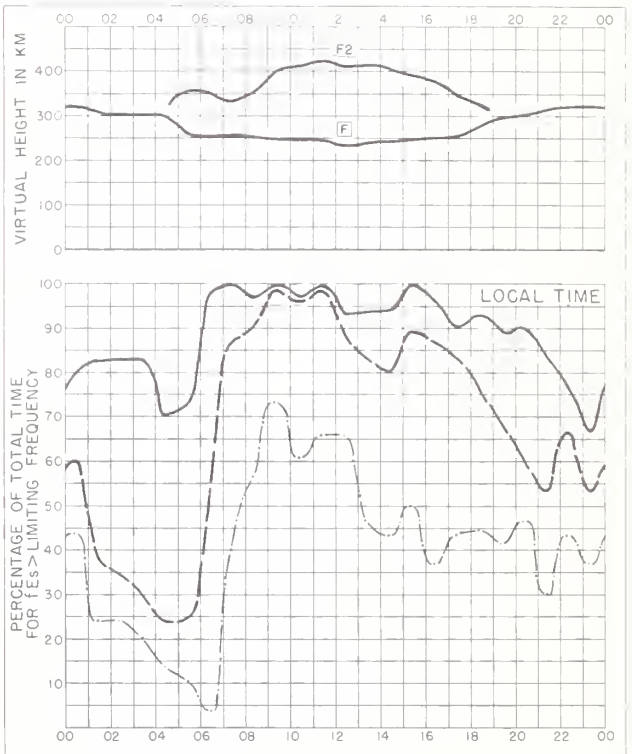



Fig. 52. AKITA, JAPAN JUNE 1959

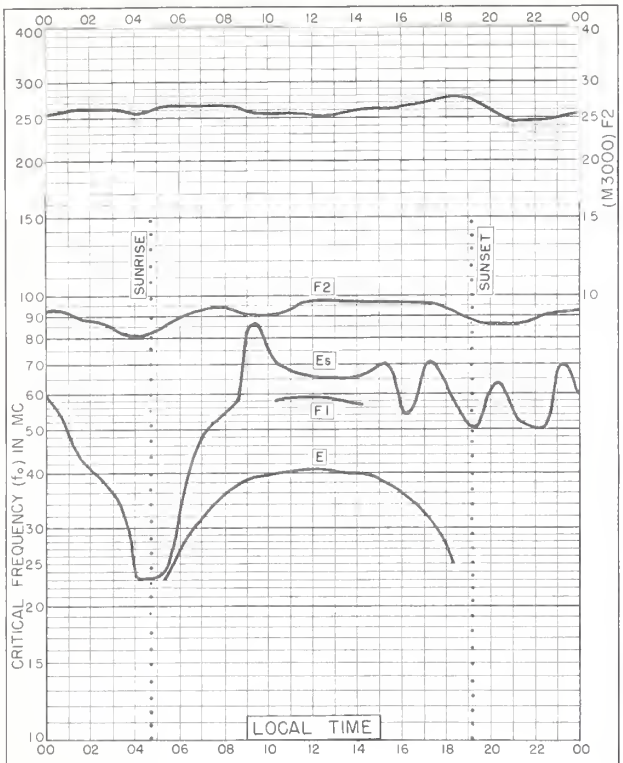



Fig. 53. TOKYO, JAPAN
35.7°N, 139.5°E JUNE 1959

NBS 503

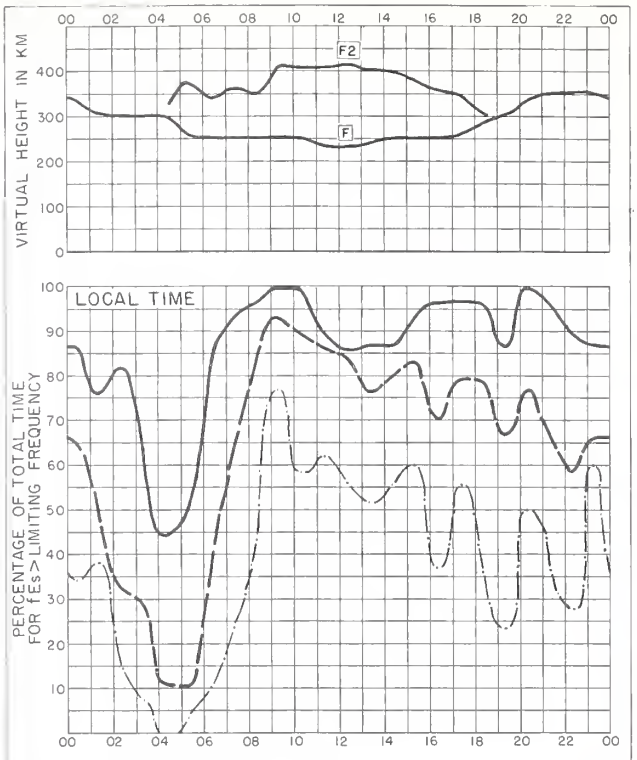



Fig. 54. TOKYO, JAPAN JUNE 1959

NBS 490

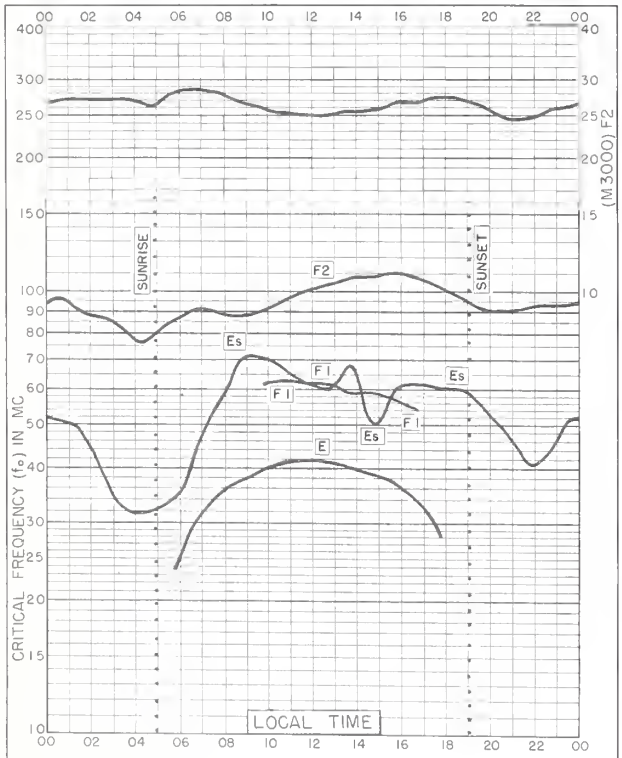



Fig. 55. YAMAGAWA, JAPAN
31.2°N, 130.6°E JUNE 1959

NBS 503

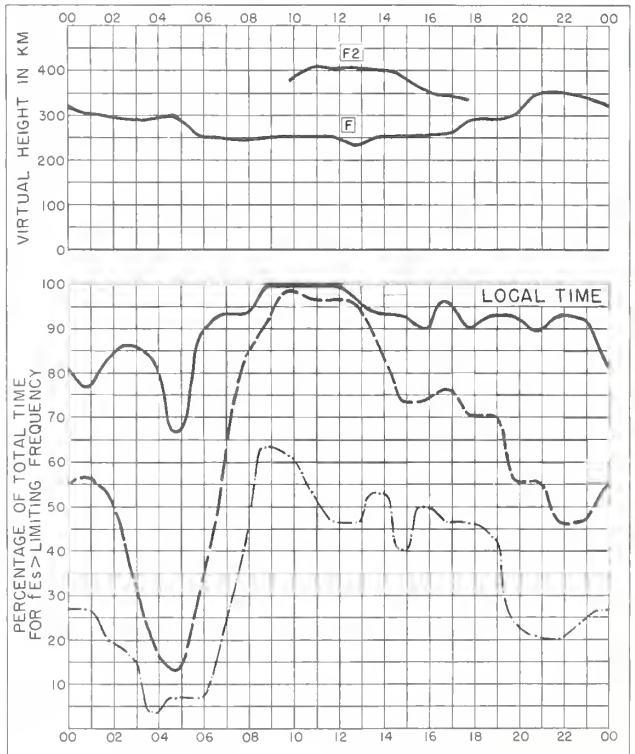



Fig. 56. YAMAGAWA, JAPAN JUNE 1959

NBS 490

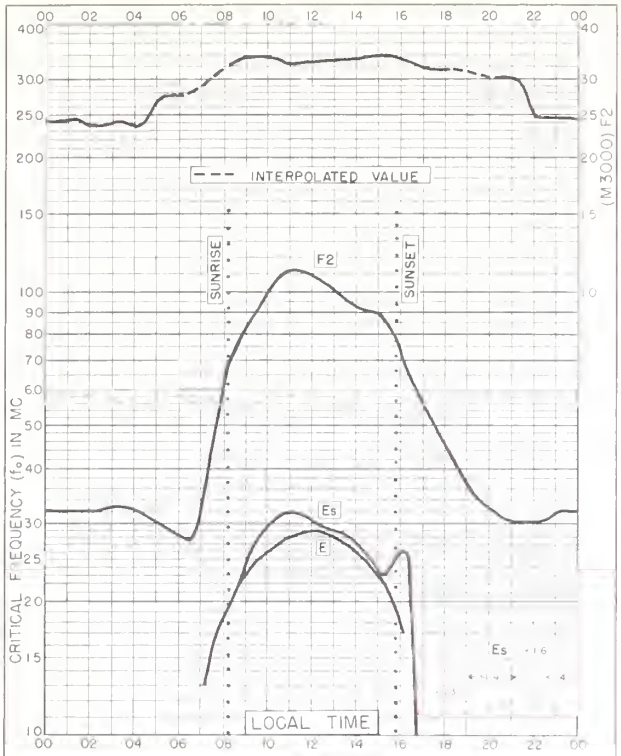



Fig. 57. FALKLAND IS.
51.7°S, 57.8°W JUNE 1959

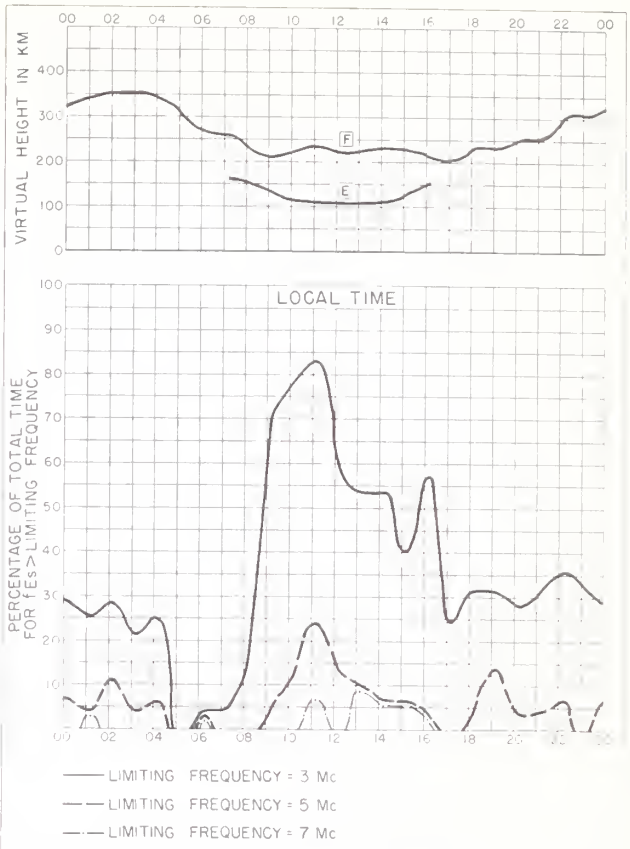



Fig. 58. FALKLAND IS. JUNE 1959

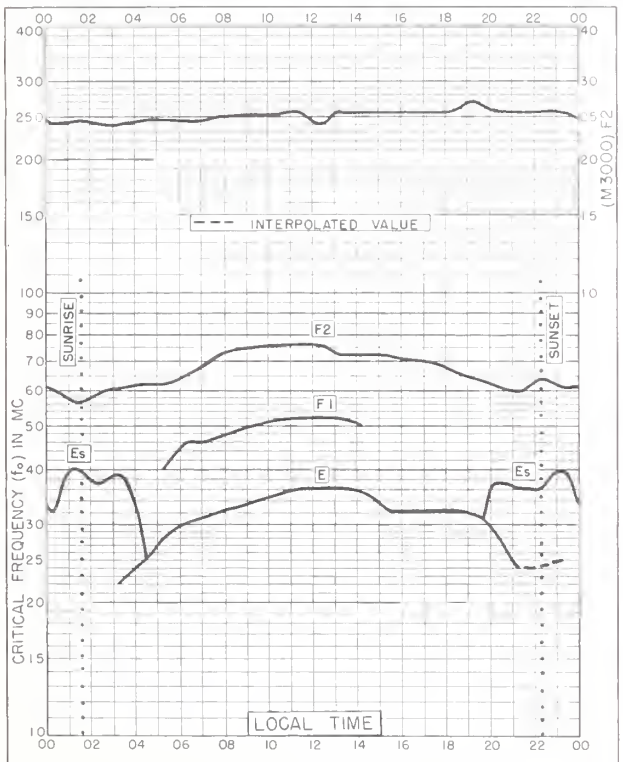



Fig. 59. TROMSO, NORWAY
69.7°N, 19.0°E MAY 1959

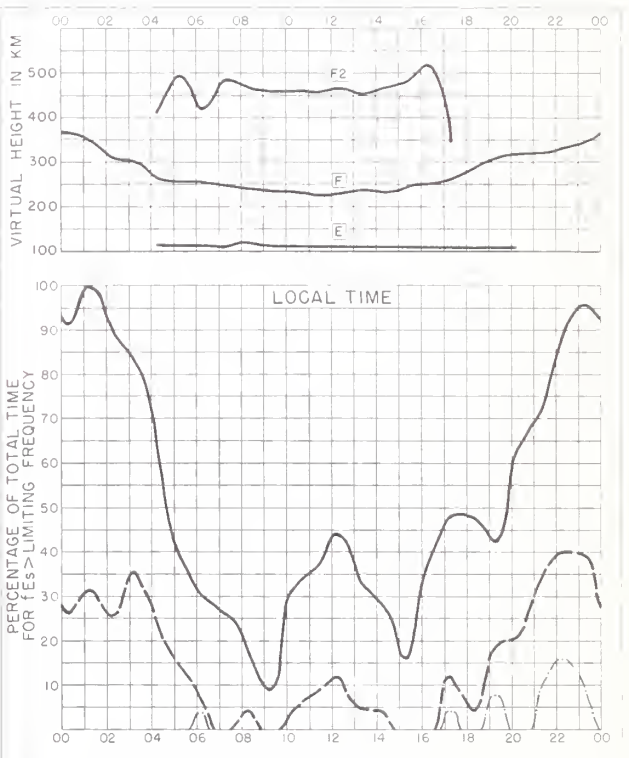



Fig. 60. TROMSO, NORWAY MAY 1959

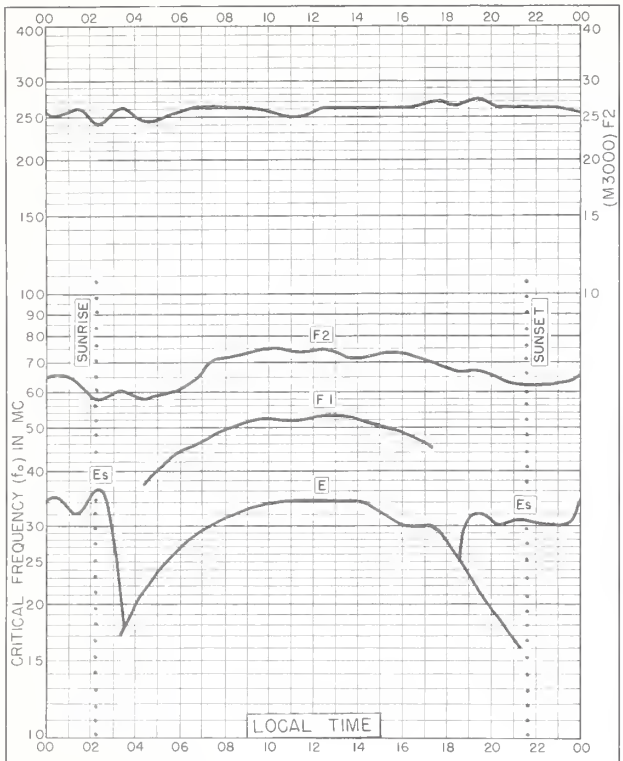



Fig. 61. KIRUNA, SWEDEN
67.8°N, 20.3°E MAY 1959

NBS 503

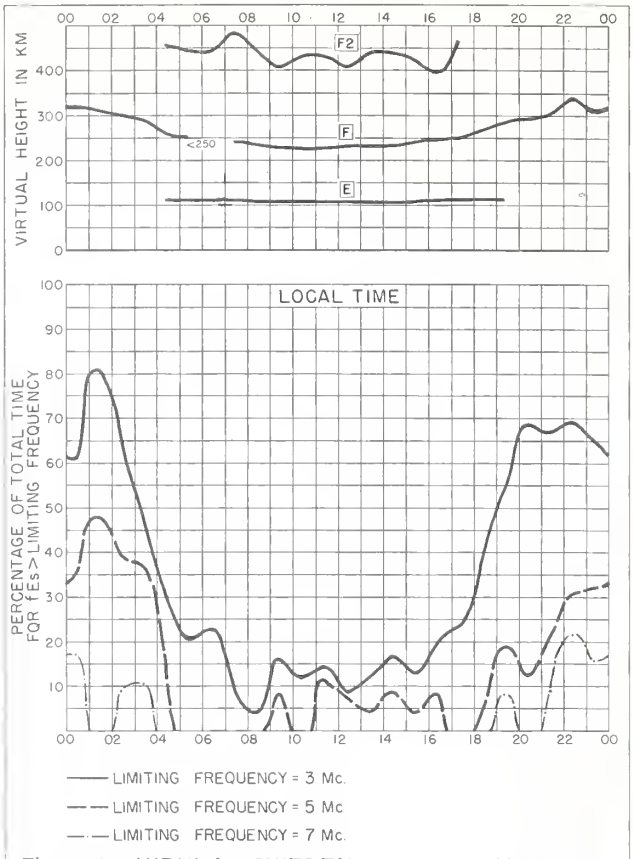



Fig. 62. KIRUNA, SWEDEN MAY 1959

NBS 490

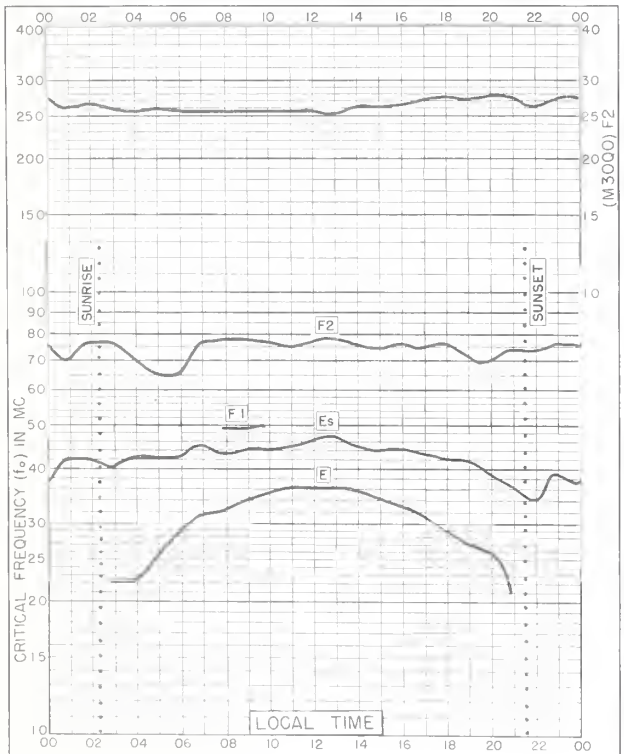



Fig. 63. SODANKYLA, FINLAND
67.4°N, 26.6°E MAY 1959

NBS 503

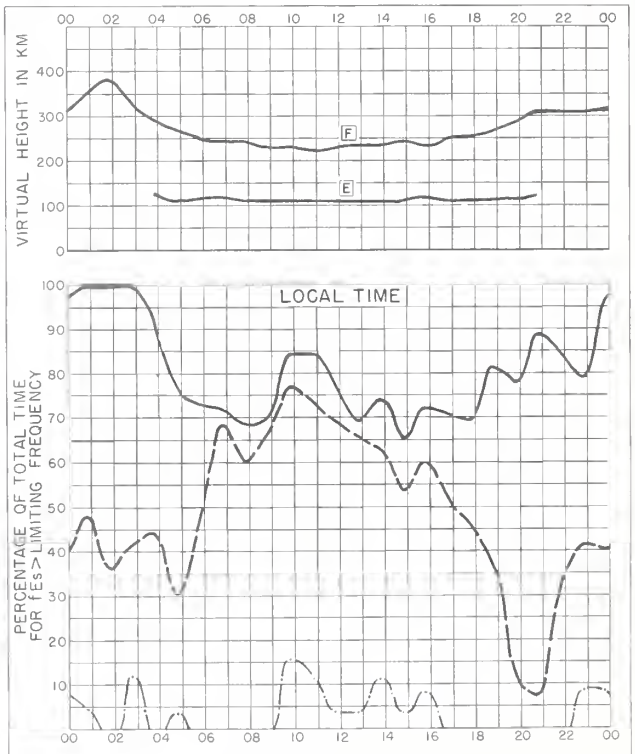



Fig. 64. SODANKYLA, FINLAND MAY 1959

NBS 490

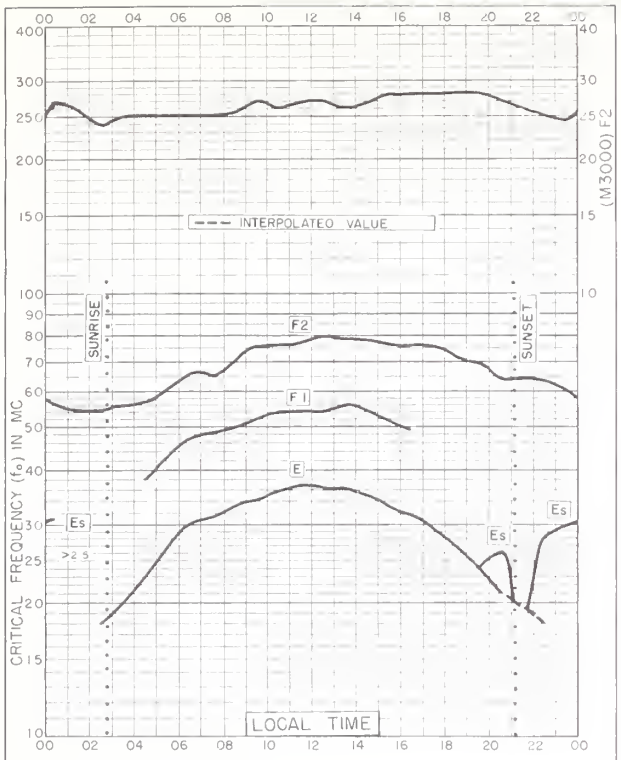



Fig. 65. LULEA, SWEDEN
65.6°N, 22.1°E MAY 1959

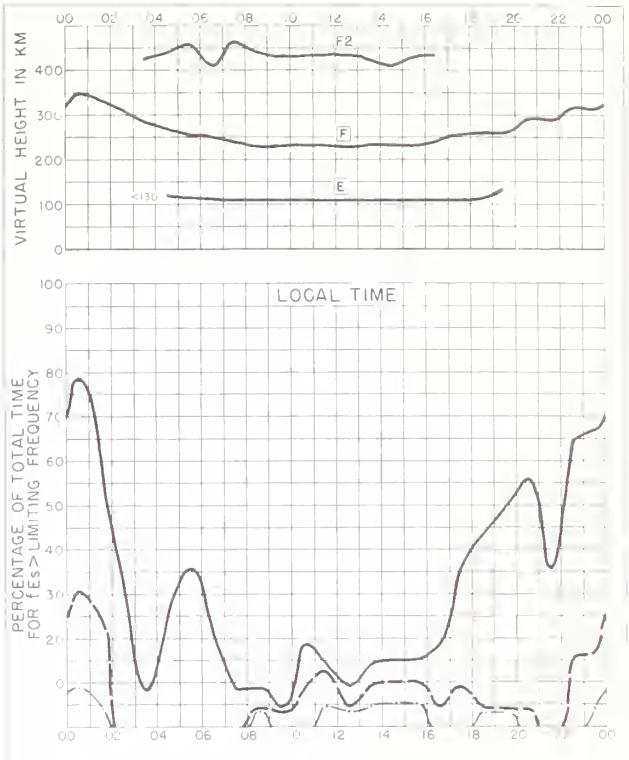



Fig. 66. LULEA, SWEDEN MAY 1959


Fig. 67. LYCKSELE, SWEDEN
64.6°N, 18.8°E MAY 1959

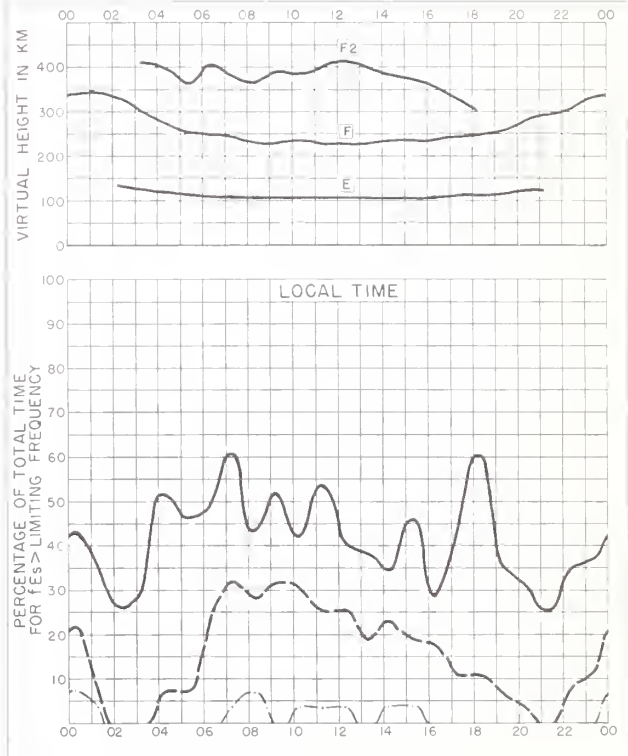



Fig. 68. LYCKSELE, SWEDEN MAY 1959

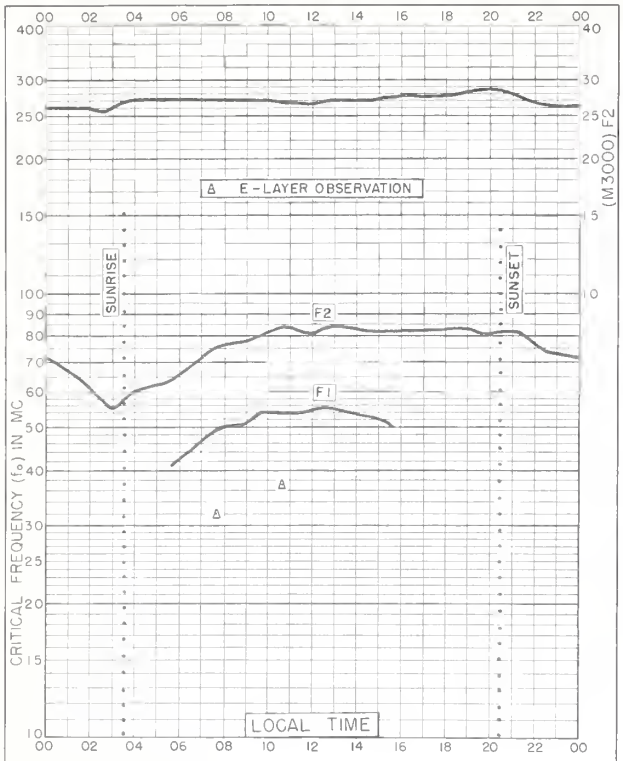



Fig. 69. NURMIJARVI, FINLAND
60.5°N, 24.6°E MAY 1959

NBS 503

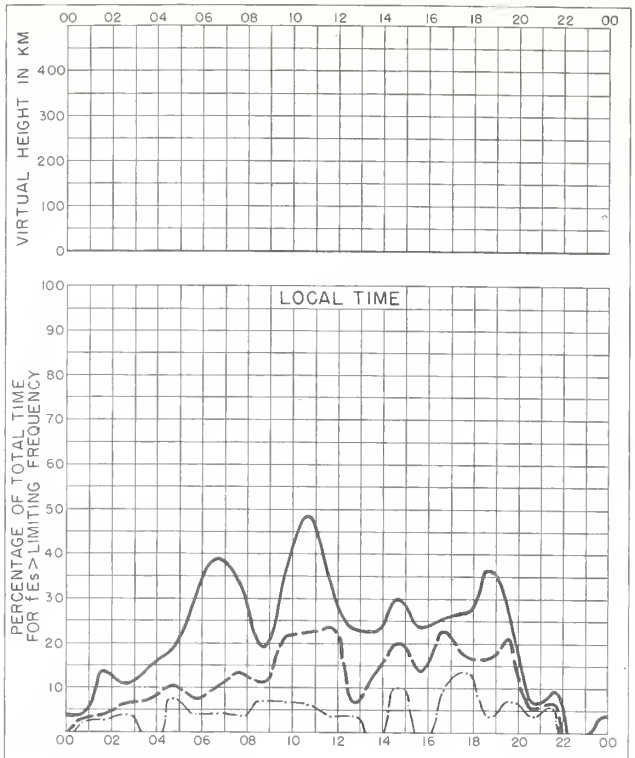



Fig. 70. NURMIJARVI, FINLAND MAY 1959

NBS 490

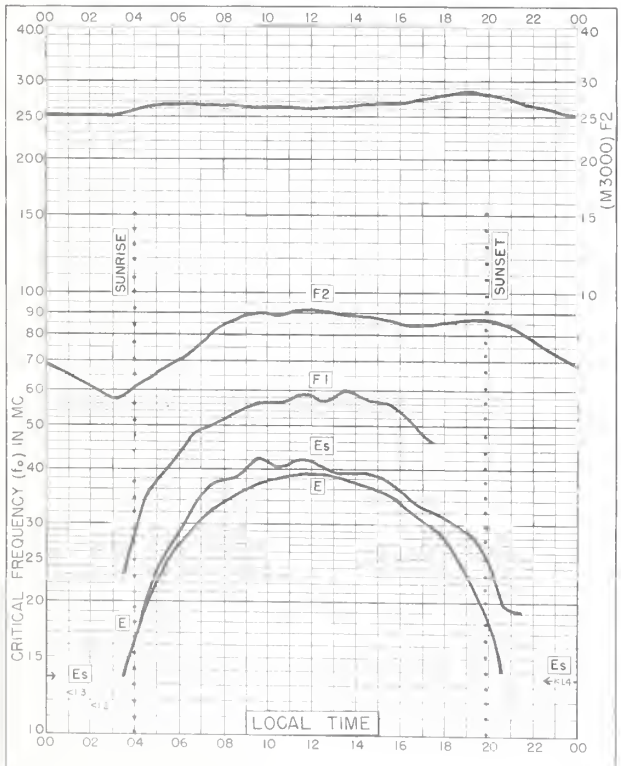



Fig. 71. MOSCOW, U.S.S.R.
55.5°N, 37.3°E MAY 1959

NBS 503

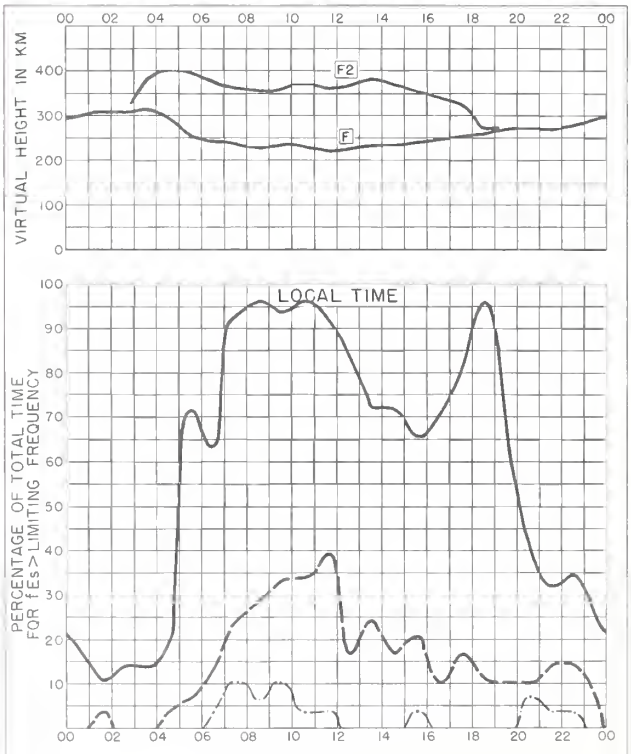



Fig. 72. MOSCOW, U.S.S.R. MAY 1959

NBS 490

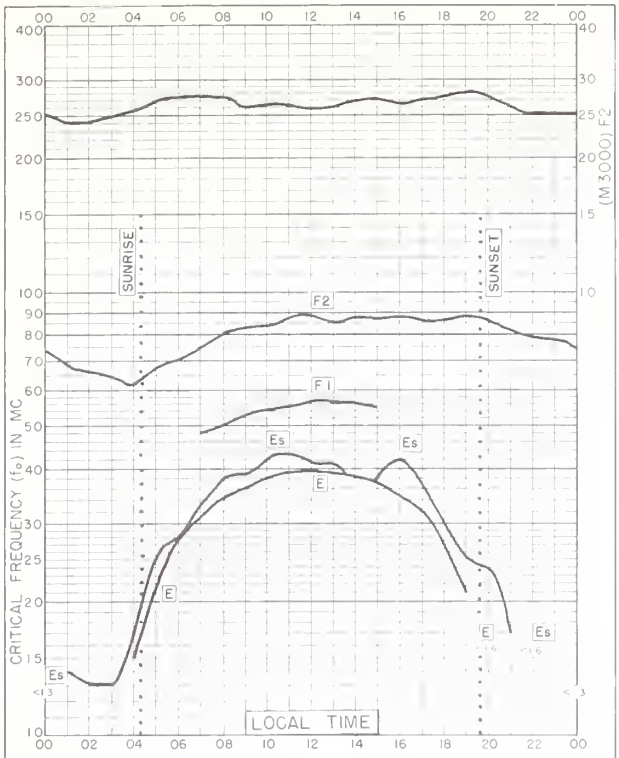



Fig. 73. SLOUGH, ENGLAND
51.5°N, 0.6°W MAY 1959

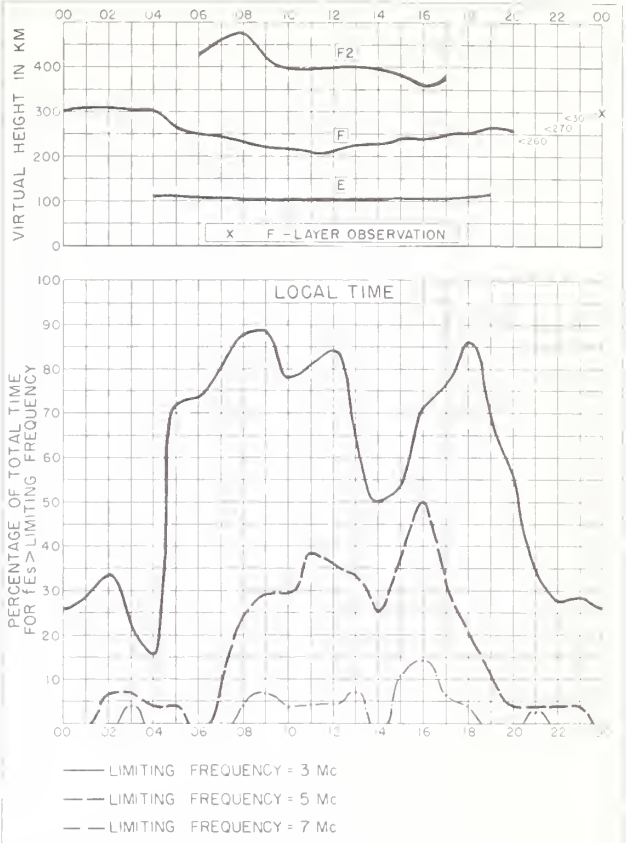



Fig. 74. SLOUGH, ENGLAND MAY 1959

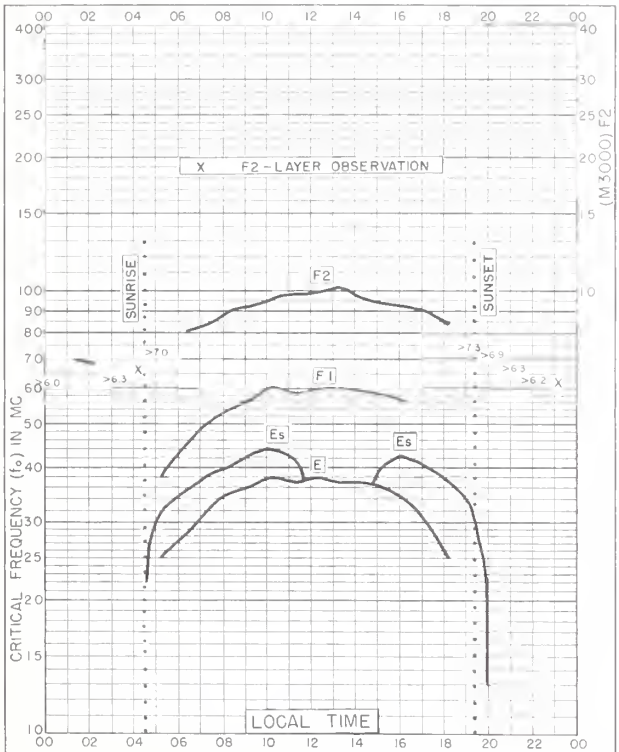



Fig. 75. BUDAPEST, HUNGARY
47.4°N, 19.2°E MAY 1959

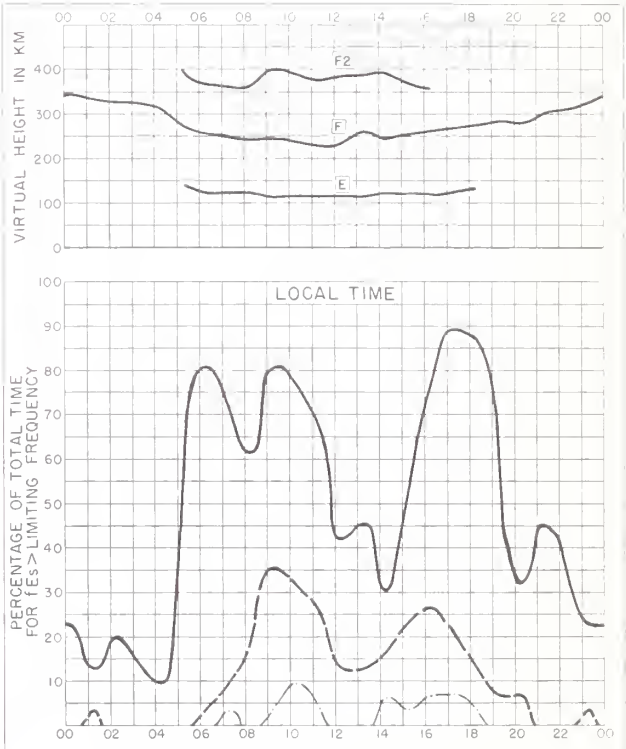



Fig. 76. BUDAPEST, HUNGARY MAY 1959

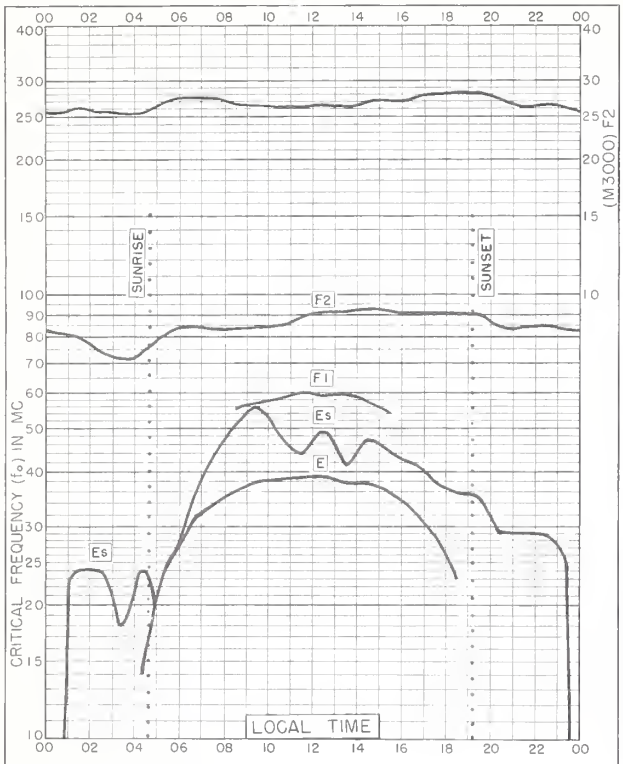



Fig. 77. WAKKANAI, JAPAN
45.4°N, 141.7°E
MAY 1959

NBS 503

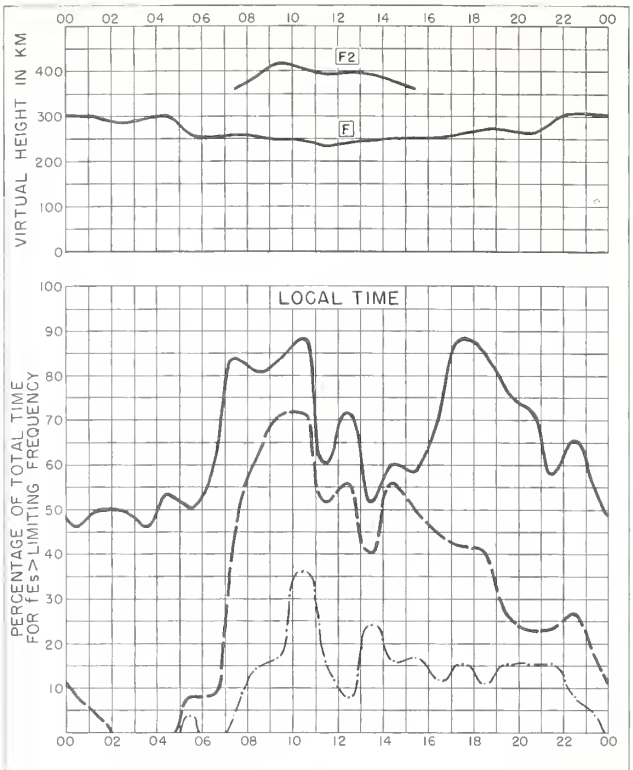



Fig. 78. WAKKANAI, JAPAN
MAY 1959

NBS 490

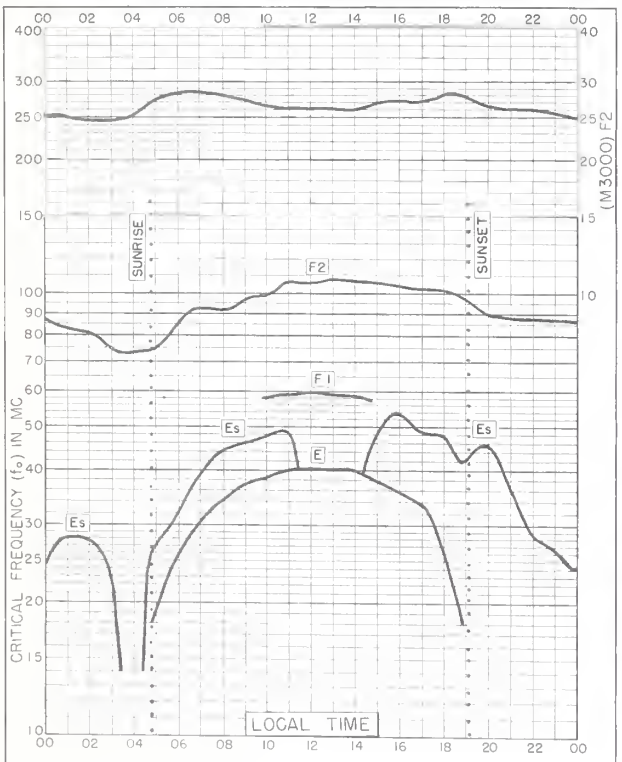



Fig. 79. ROME, ITALY
41.8°N, 12.5°E
MAY 1959

NBS 503

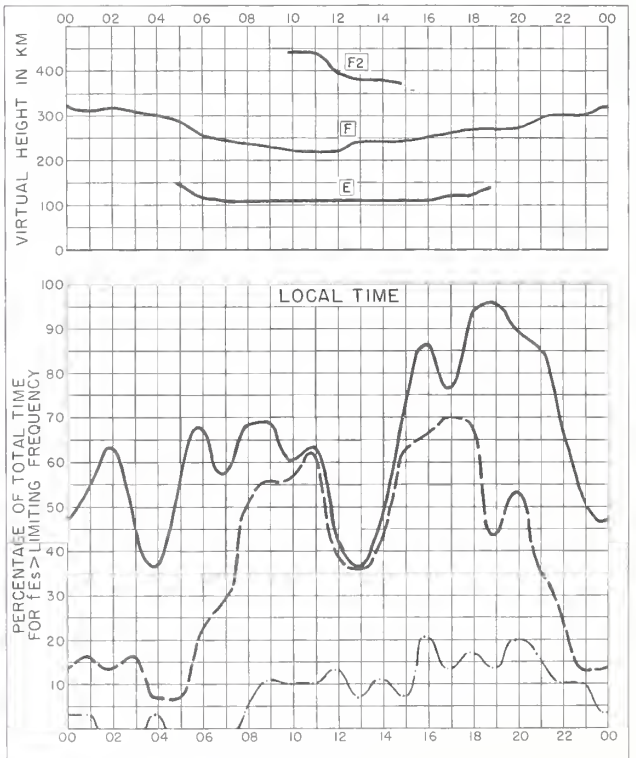



Fig. 80. ROME, ITALY
MAY 1959

NBS 490

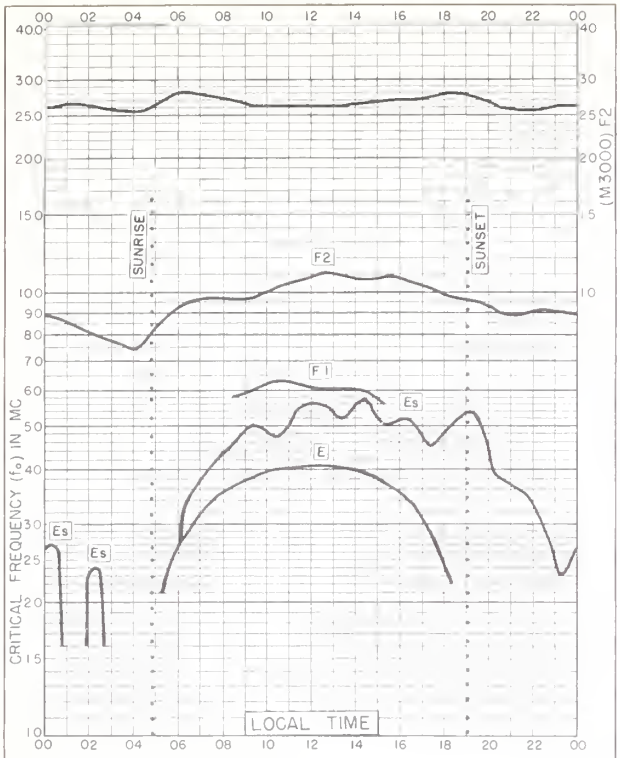



Fig. 81. AKITA, JAPAN
39.7°N, 140.1°E MAY 1959

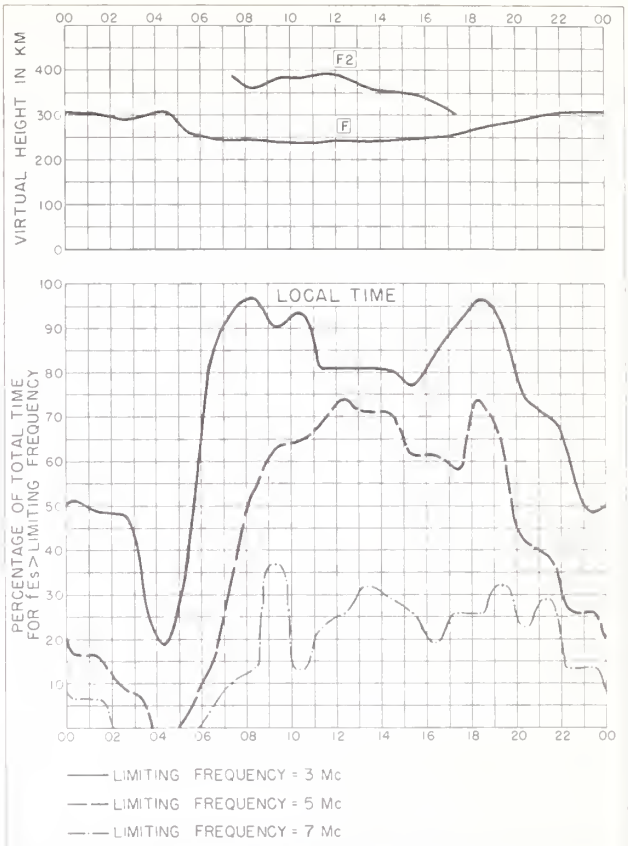



Fig. 82. AKITA, JAPAN MAY 1959

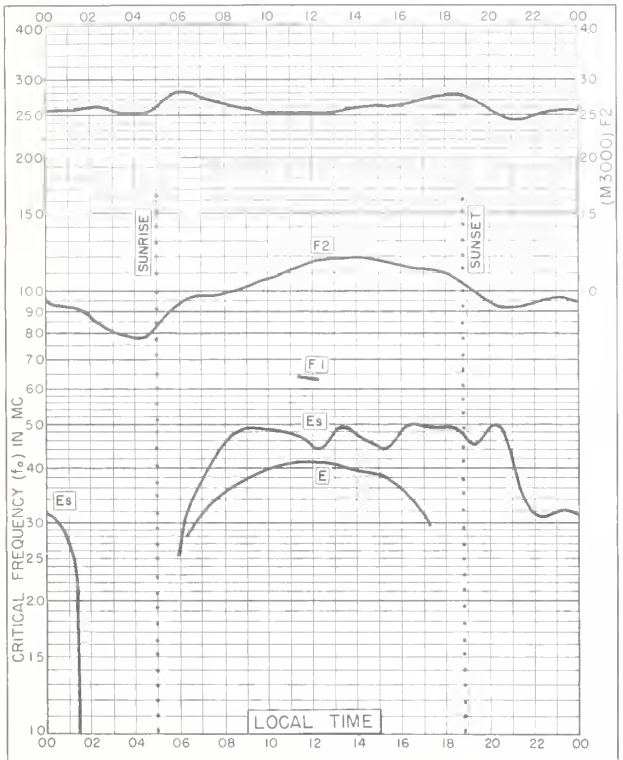



Fig. 83. TOKYO, JAPAN
35.7°N, 139.5°E MAY 1959

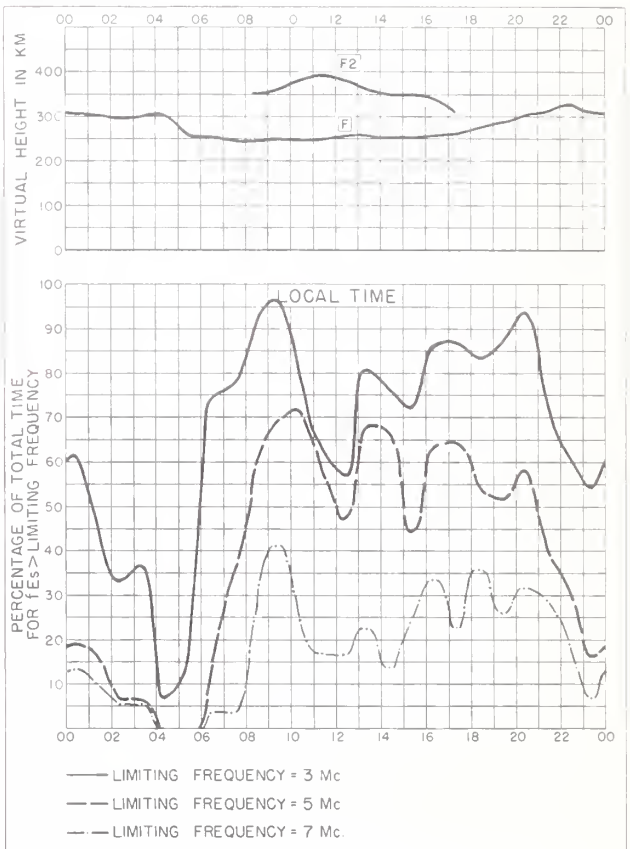



Fig. 84. TOKYO, JAPAN MAY 1959

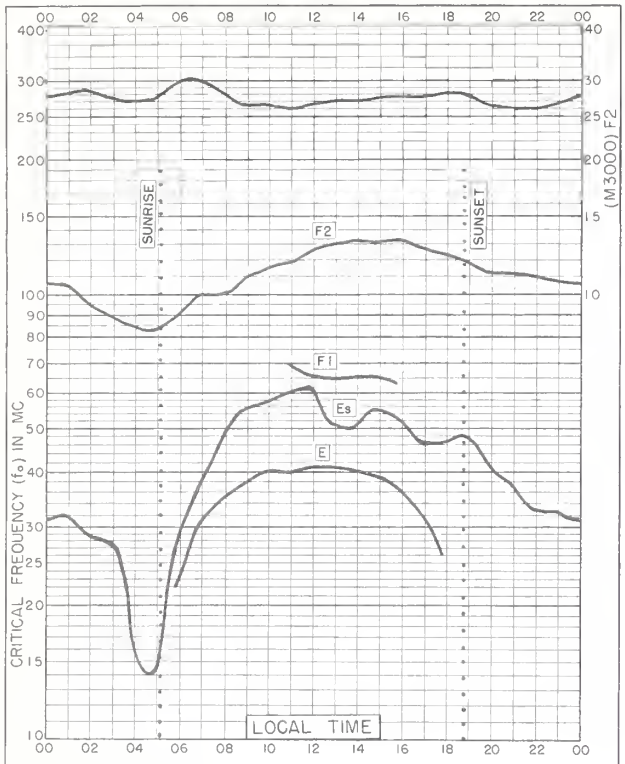



Fig. 85. YAMAGAWA, JAPAN
31.2°N, 130.6°E MAY 1959

NBS 503

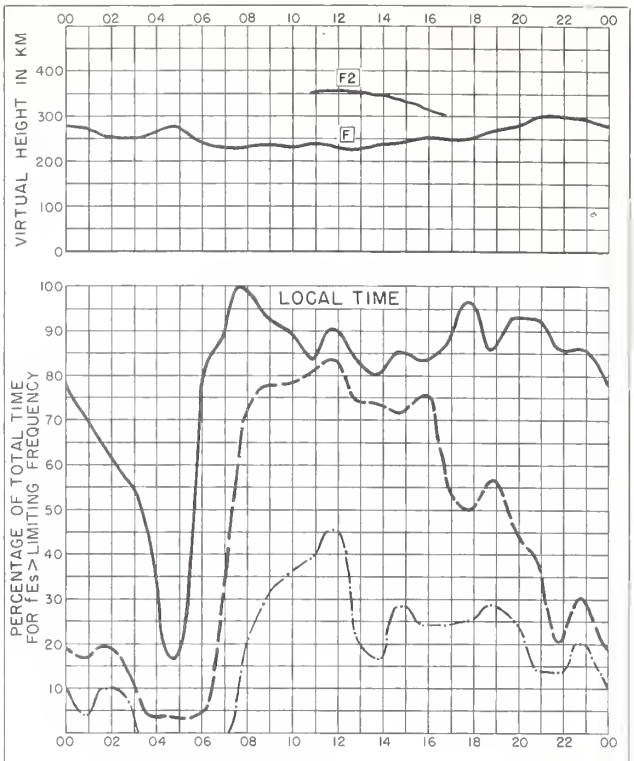



Fig. 86. YAMAGAWA, JAPAN MAY 1959

NBS 490

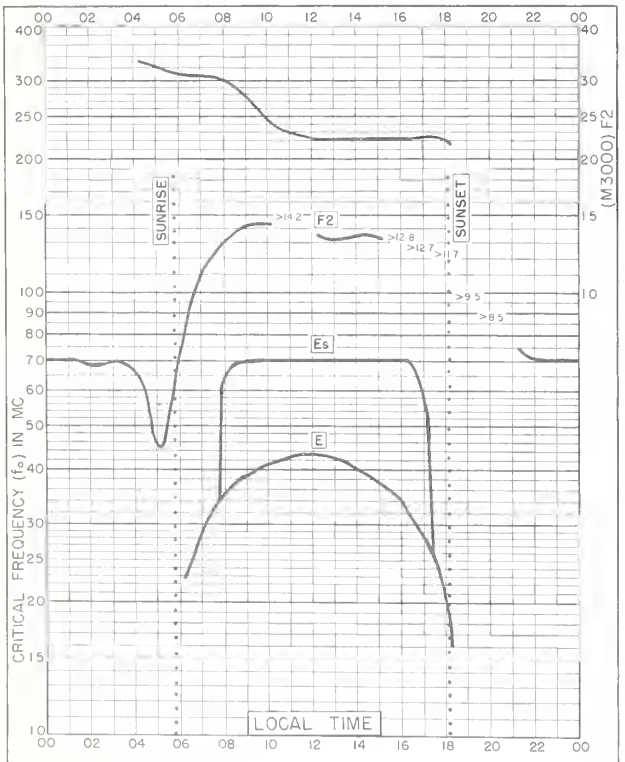



Fig. 87. IBADAN, NIGERIA
7.4°N, 3.9°E MAY 1959

NBS 503

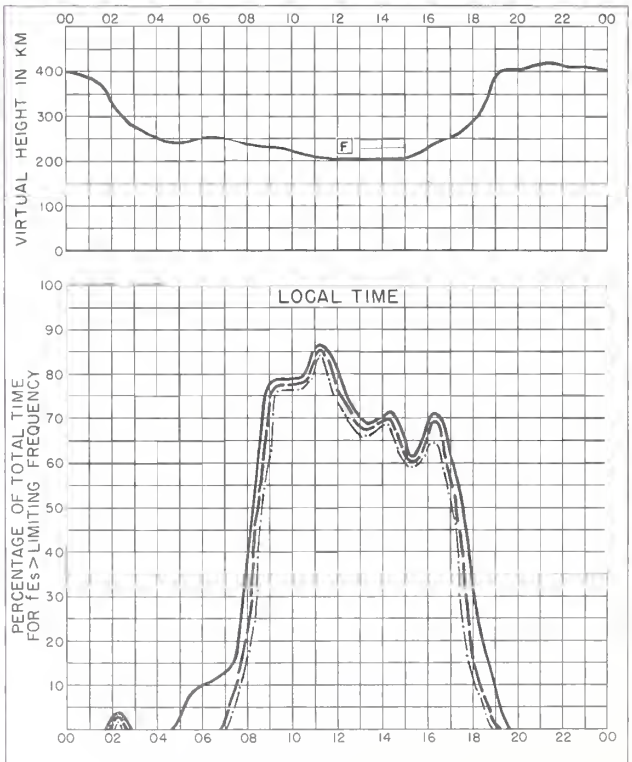



Fig. 88. IBADAN, NIGERIA MAY 1959

NBS 490

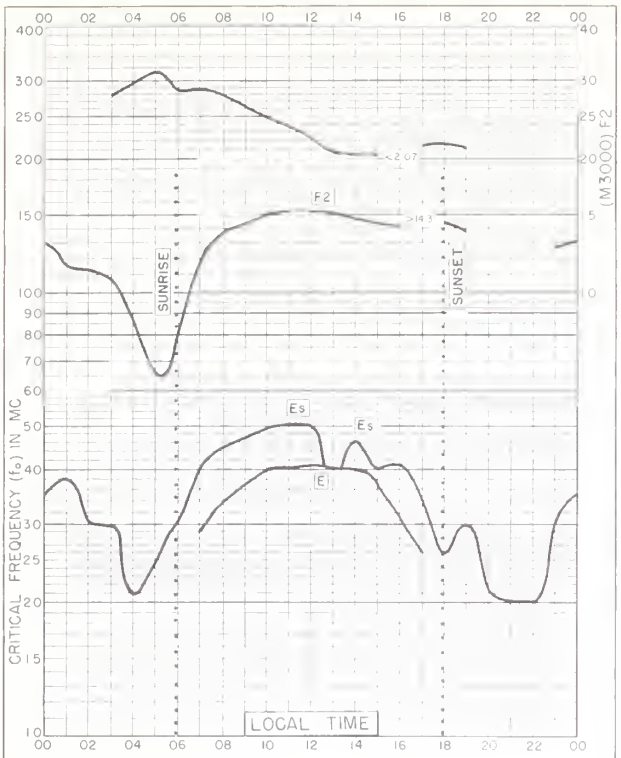



Fig. 89. BUNIA, BELGIAN CONGO
1.5°N, 30.2°E MAY 1959

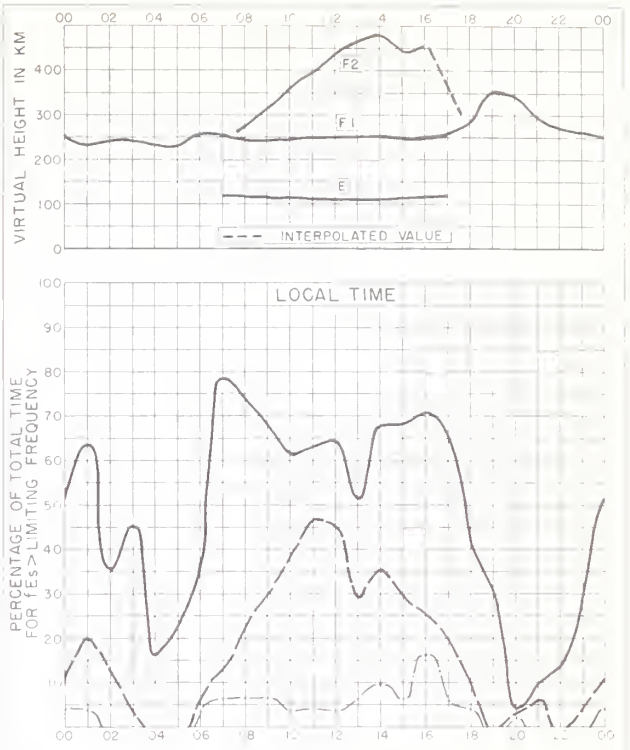



Fig. 90 BUNIA, BELGIAN CONGO MAY 1959

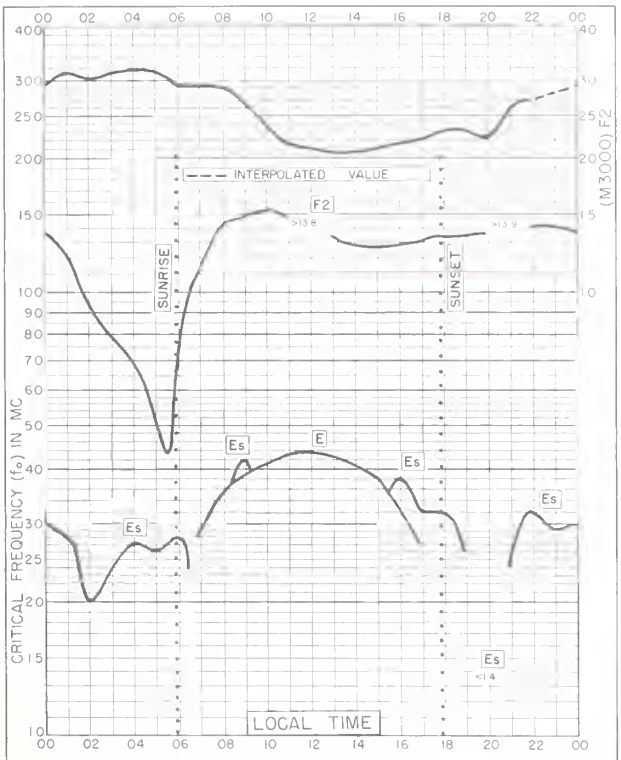



Fig. 91. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E MAY 1959

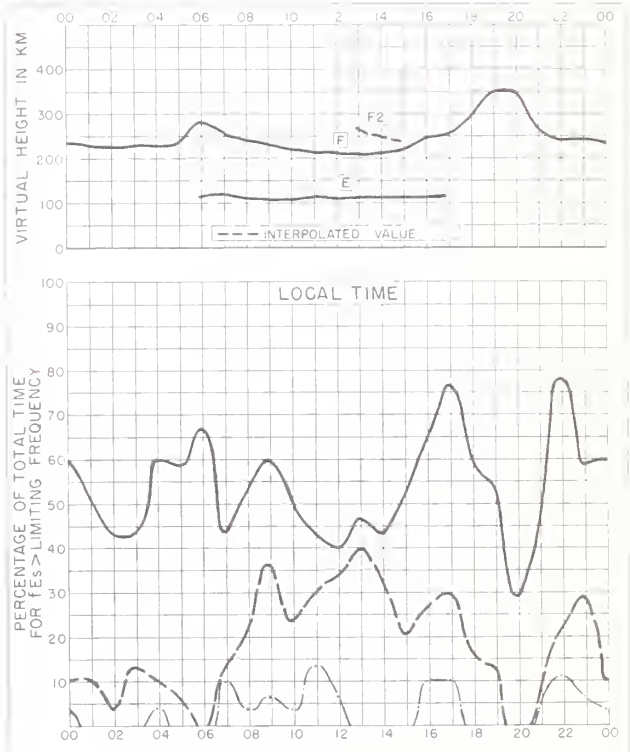



Fig. 92. SINGAPORE, BRITISH MALAYA MAY 1959

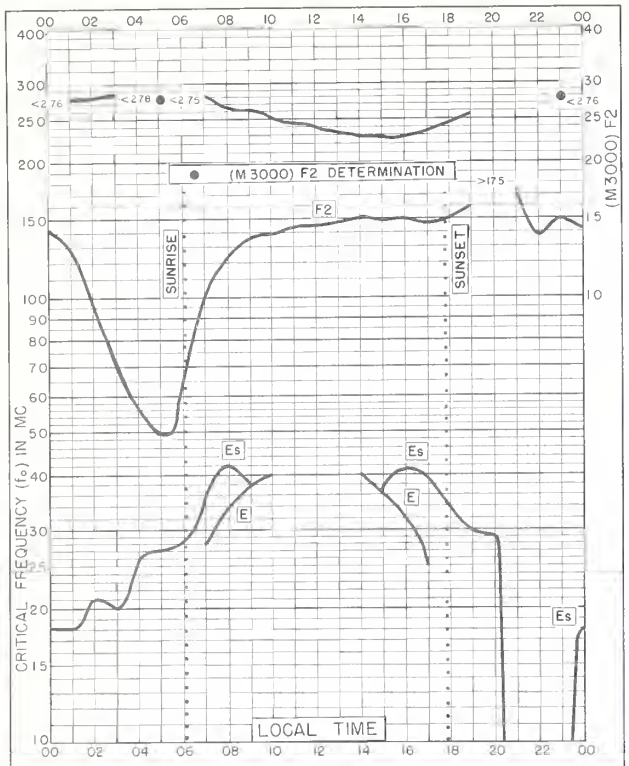
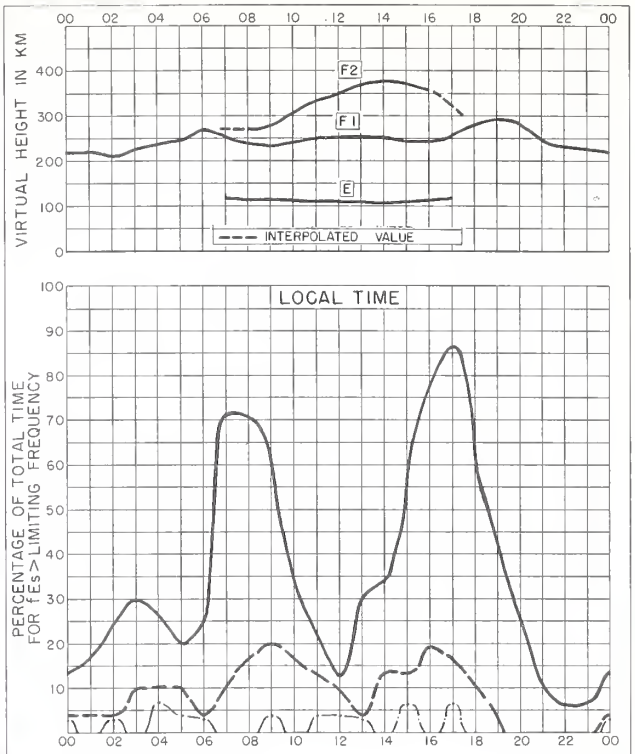



Fig. 93. LEOPOLDVILLE, BELGIAN CONGO
4.4°S, 15.2°E MAY 1959

NBS 503




MAY 1959

Fig. 94. LEOPOLDVILLE, BELGIAN CONGO

NBS 490

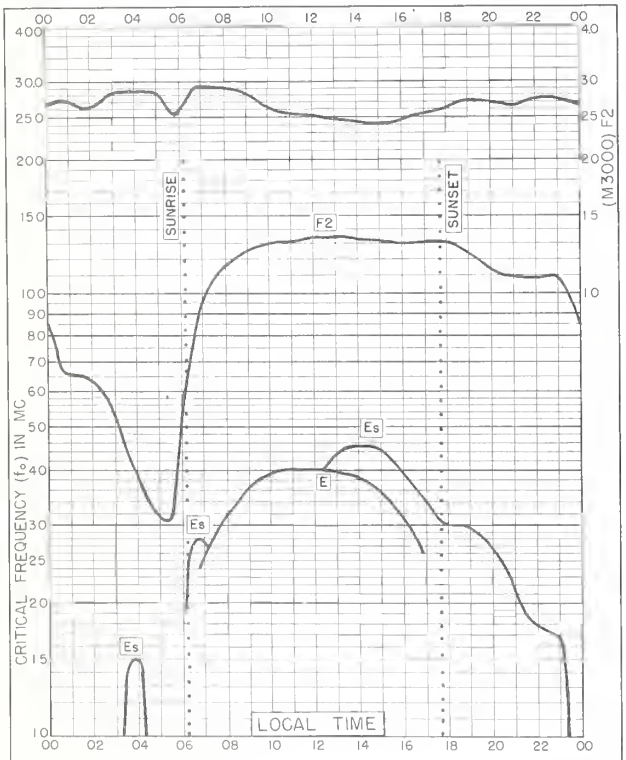
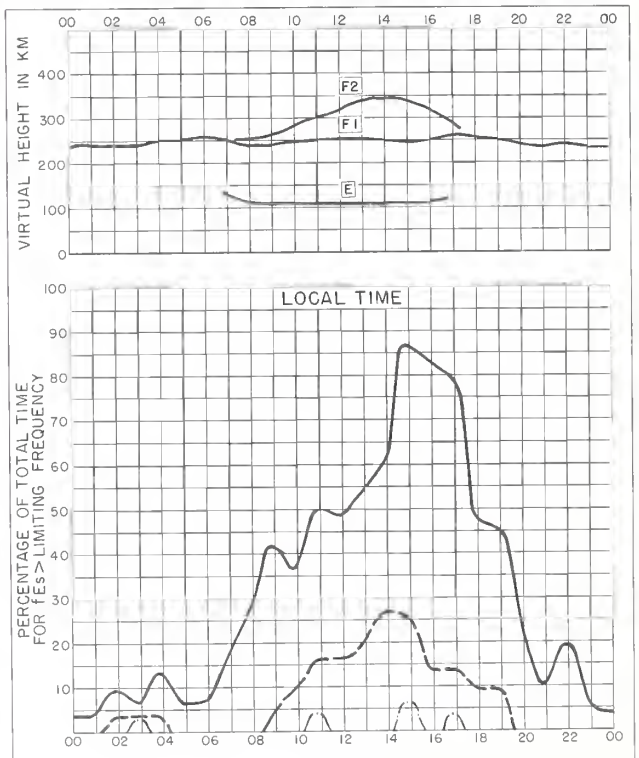



Fig. 95. ELISABETHVILLE, BELGIAN CONGO
11.6°S, 27.5°E MAY 1959

NBS 503




MAY 1959

Fig. 96. ELISABETHVILLE, BELGIAN CONGO

NBS 490

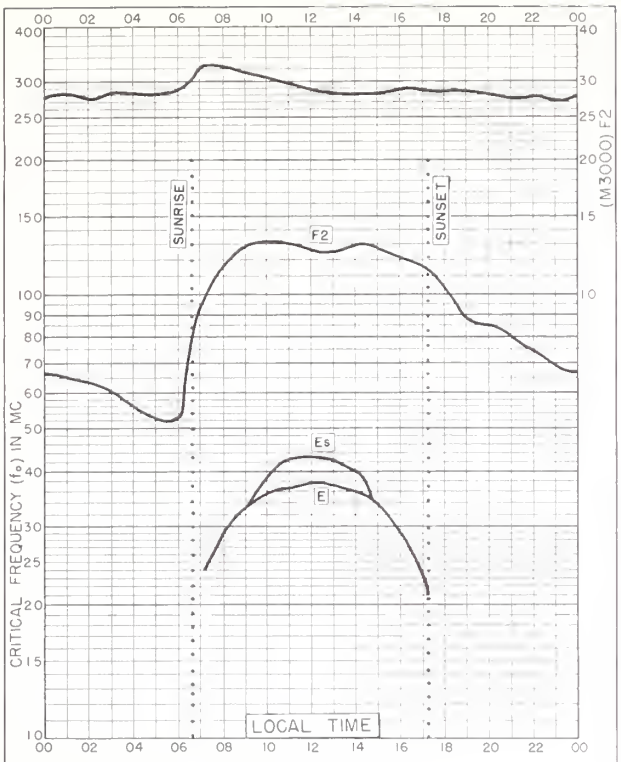



Fig. 97. BRISBANE, AUSTRALIA
27.5°S, 152.9°E MAY 1959

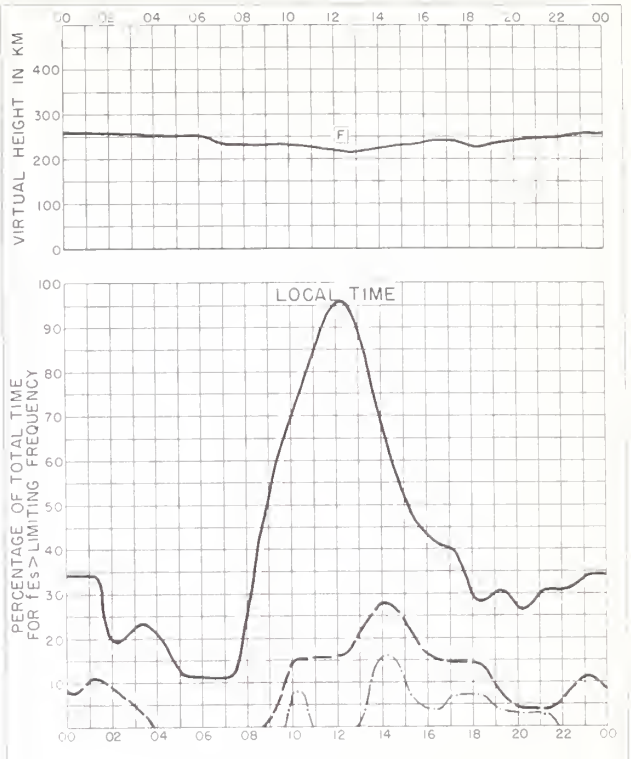



Fig. 98. BRISBANE, AUSTRALIA MAY 1959


Fig. 99. FALKLAND IS.
51.7°S, 57.8°W MAY 1959

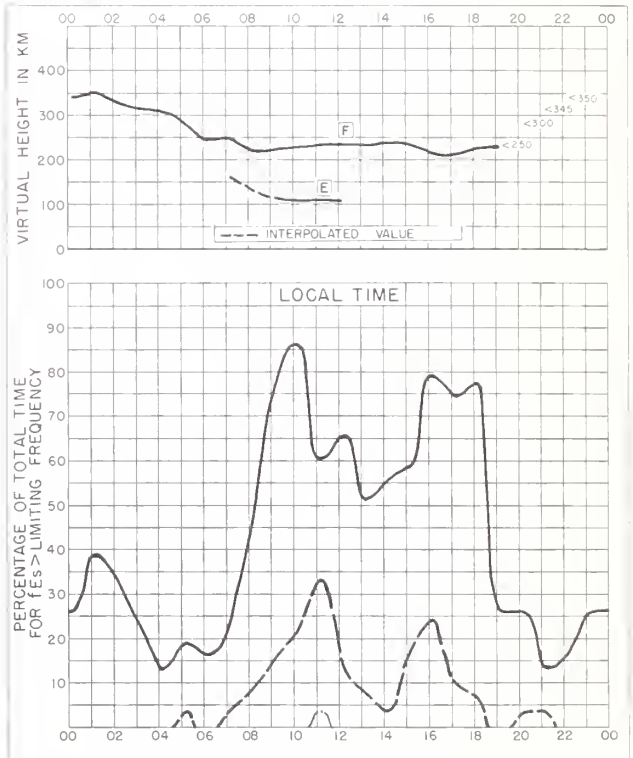



Fig. 100. FALKLAND IS. MAY 1959

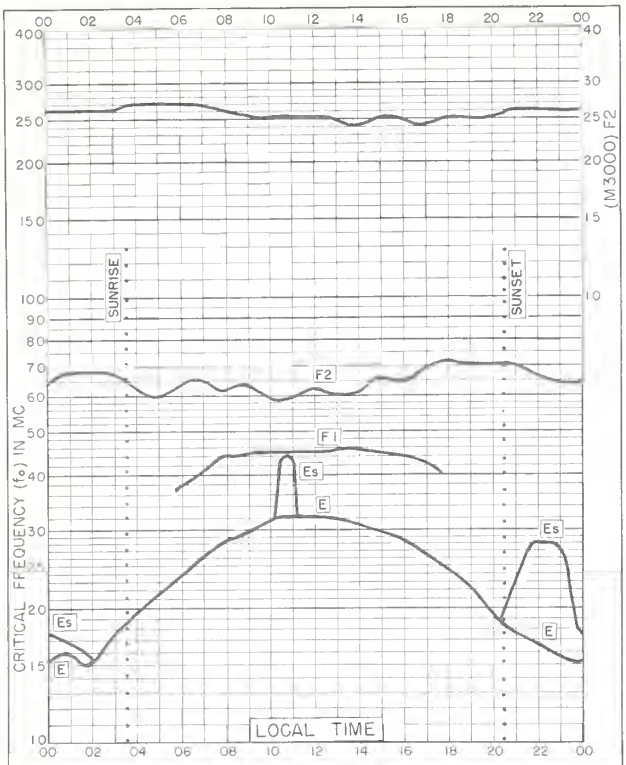



Fig. 101. RESOLUTE BAY, CANADA
74.7°N, 94.9°W APRIL 1959

NBS 503

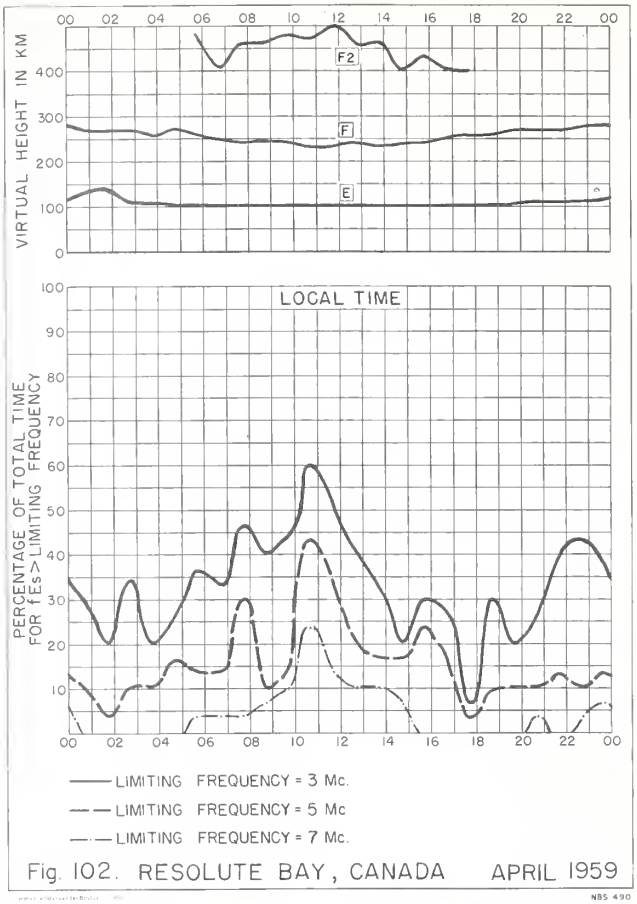



Fig. 102. RESOLUTE BAY, CANADA APRIL 1959

NBS 490

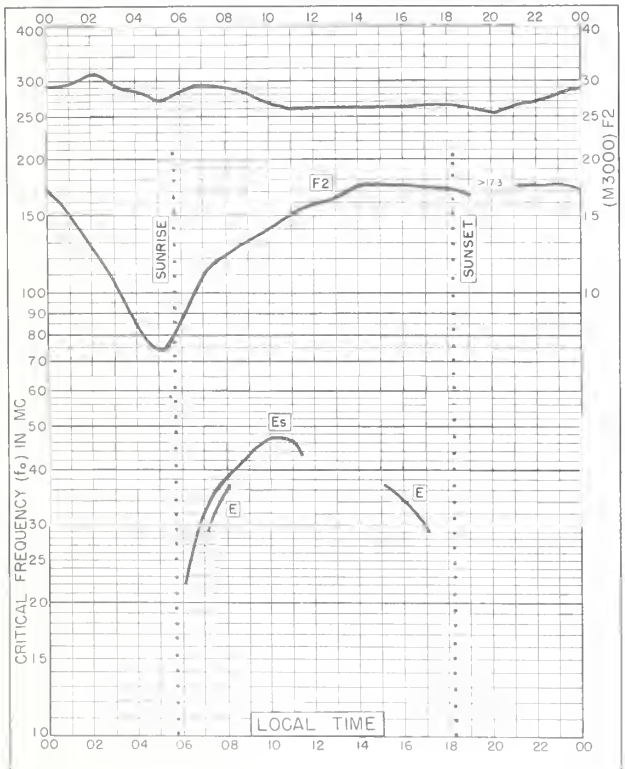



Fig 103. FORMOSA, CHINA
25.0°N, 121.5°E APRIL 1959

NBS 503

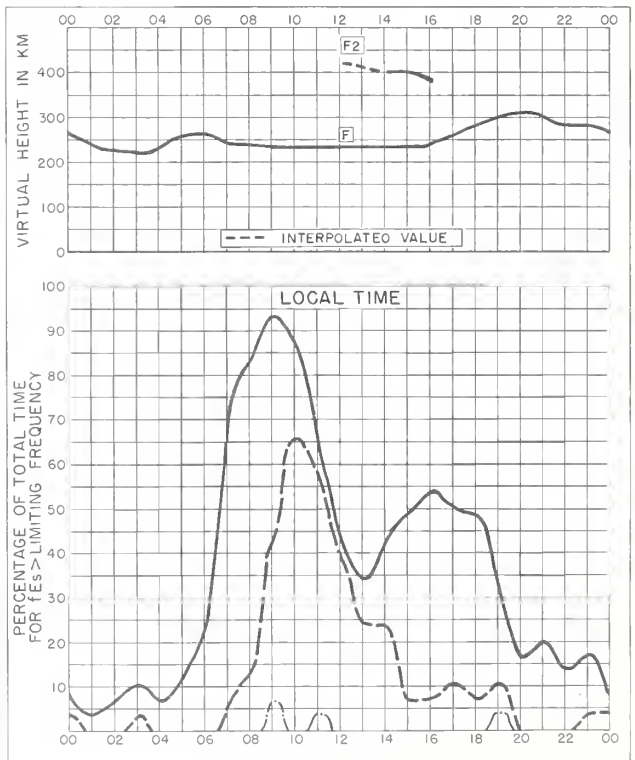



Fig. 104. FORMOSA, CHINA APRIL 1959

NBS 490

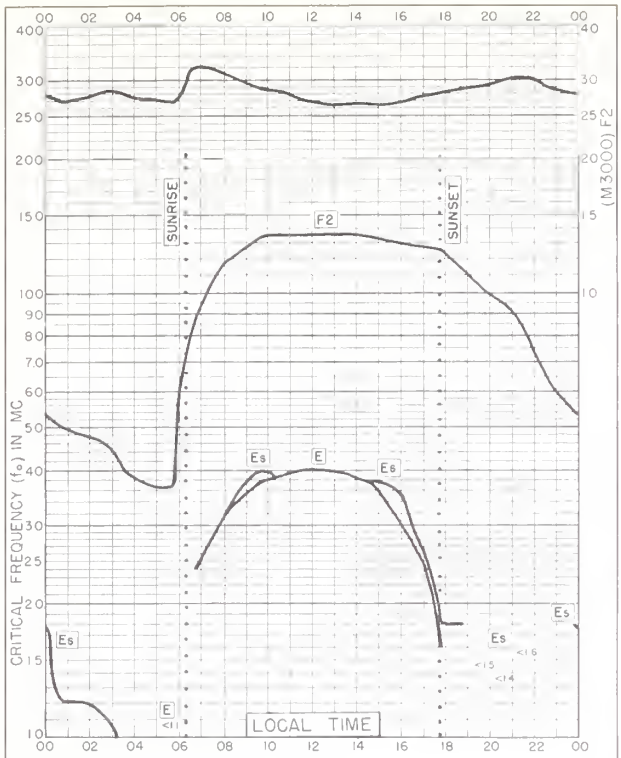
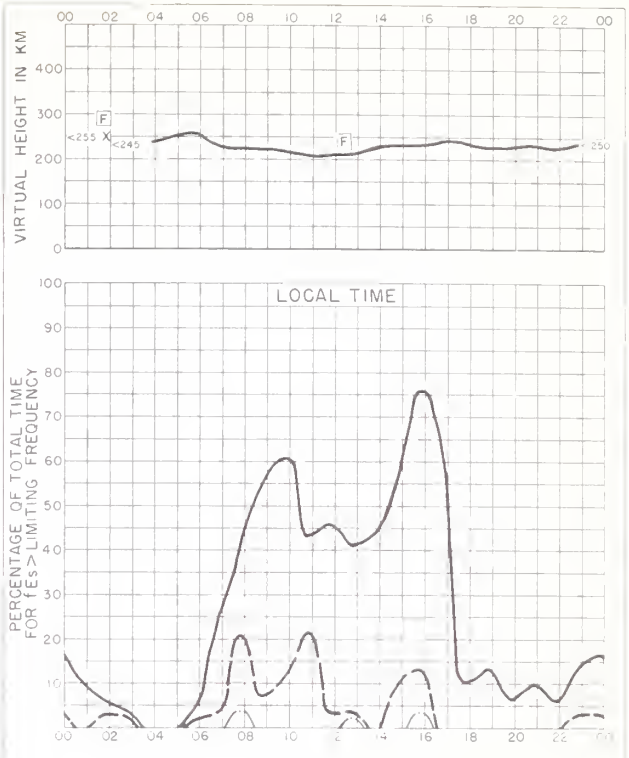



Fig. 105. JOHANNESBURG, UNION OF S. AFRICA
26.1°S, 28.1°E APRIL 1959




APRIL 1959

Fig. 106. JOHANNESBURG, UNION OF S. AFRICA

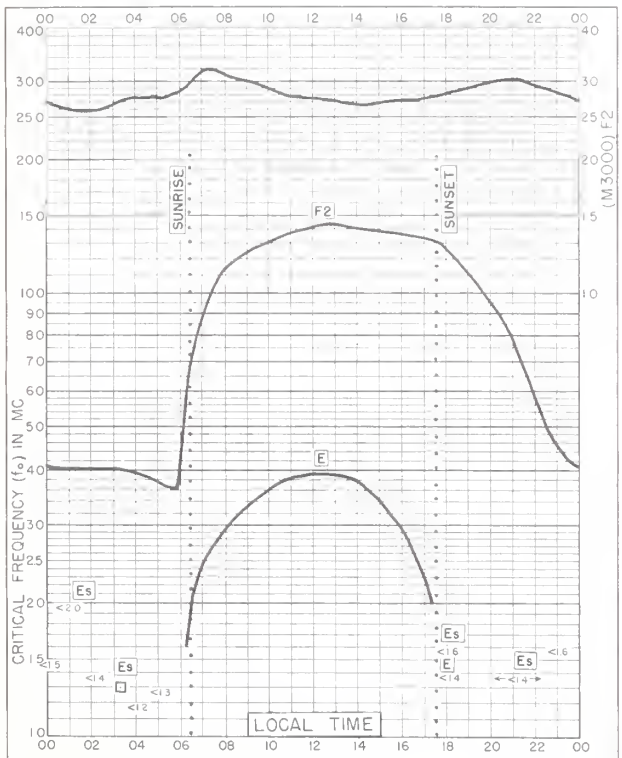
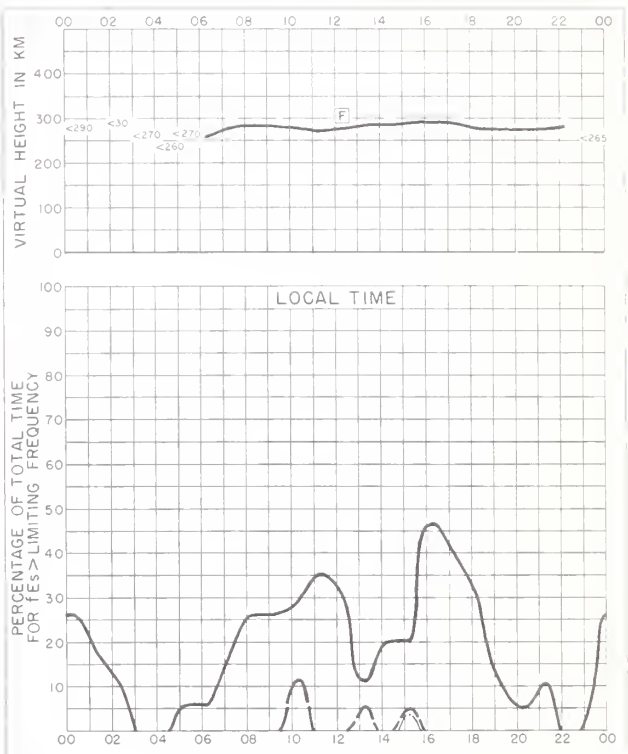



Fig. 107. CAPETOWN, UNION OF S. AFRICA
34.1°S, 18.3°E APRIL 1959




APRIL 1959

Fig. 108. CAPETOWN, UNION OF S. AFRICA

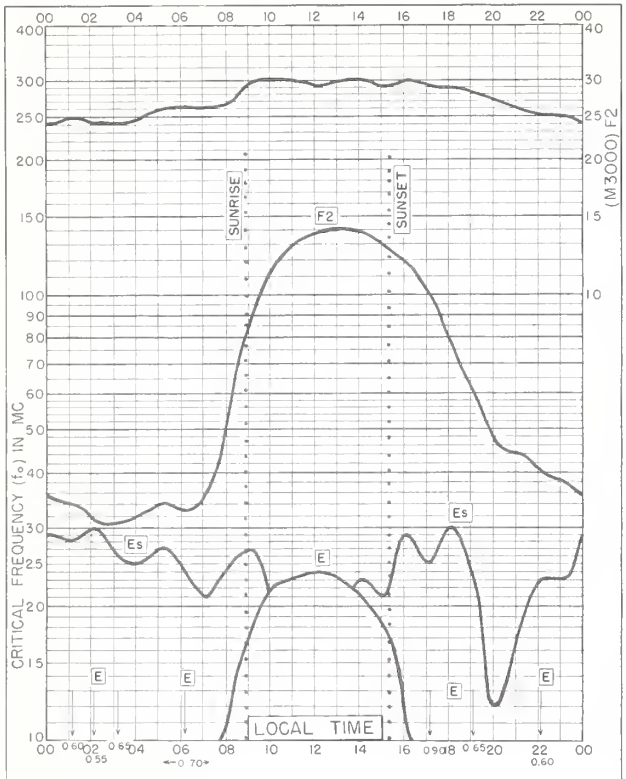



Fig. 109. UPSALA, SWEDEN
59.8°N, 17.6°E JANUARY 1959

NBS 503

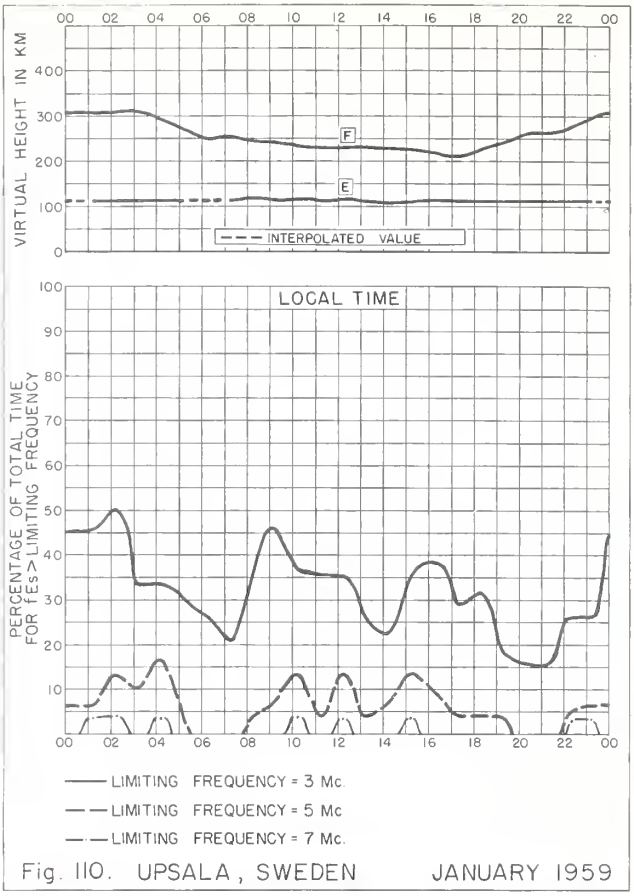



Fig. 110. UPSALA, SWEDEN JANUARY 1959

NBS 490

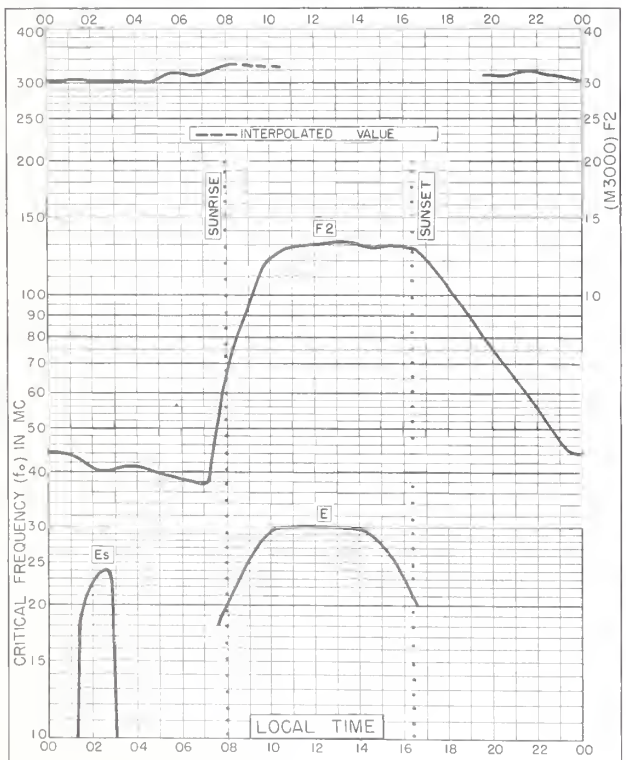



Fig. III. WINNIPEG, CANADA
49.9°N, 97.4°W JANUARY 1959

NBS 503

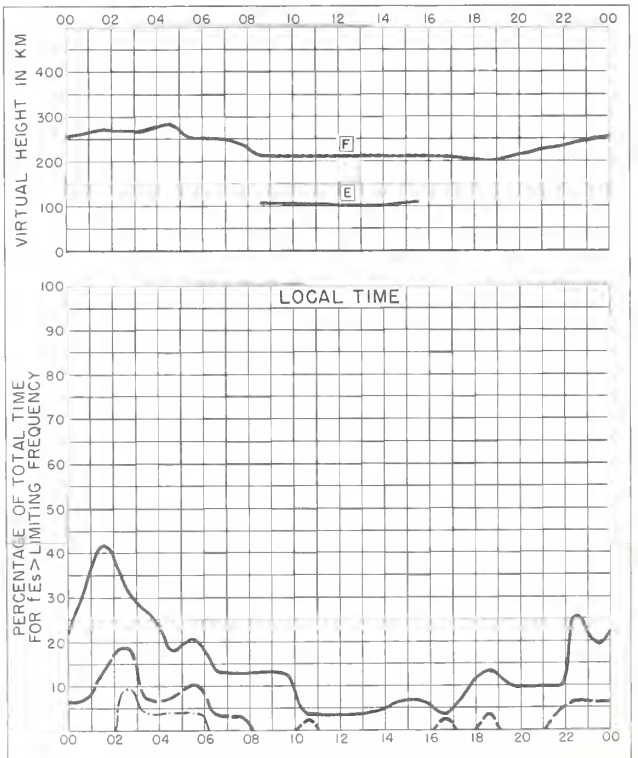



Fig 112. WINNIPEG, CANADA JANUARY 1959

NBS 490

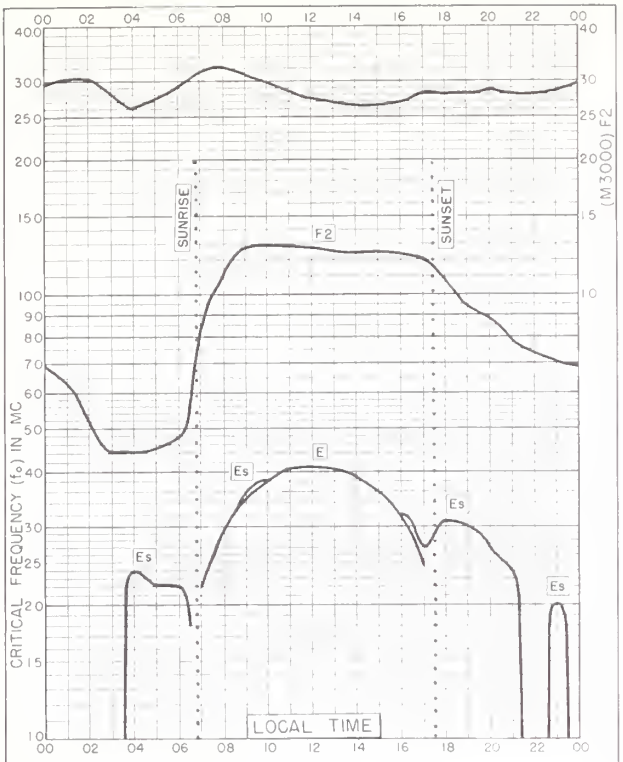



Fig. 113. SAN SALVADOR I.
24.1°N, 74.5°W JANUARY 1959

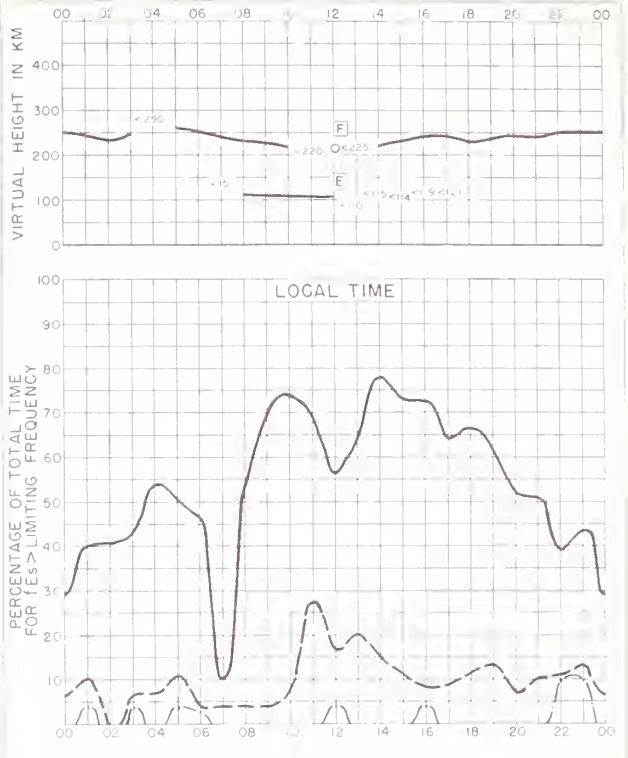



Fig. 114. SAN SALVADOR I. JANUARY 1959

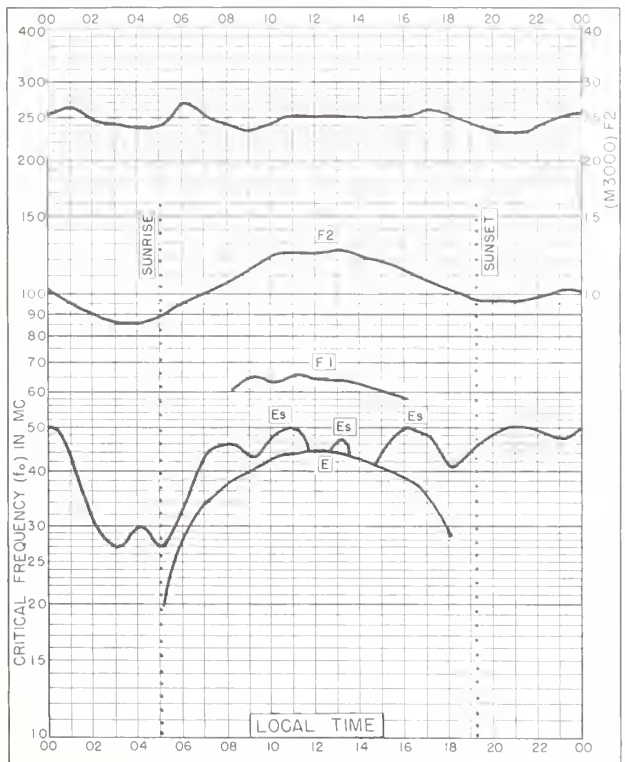



Fig. 115. CONCEPCION, CHILE
36.6°S, 73.0°W JANUARY 1959

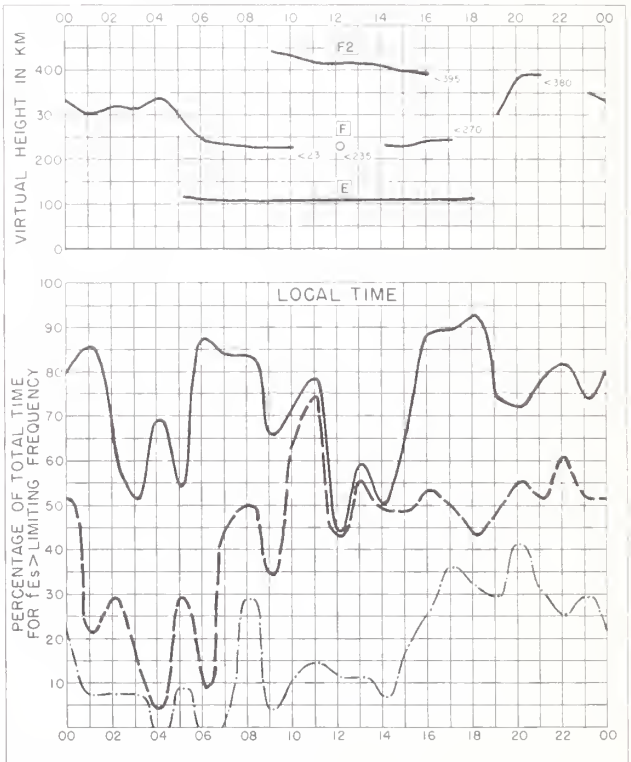



Fig. 116. CONCEPCION, CHILE JANUARY 1959

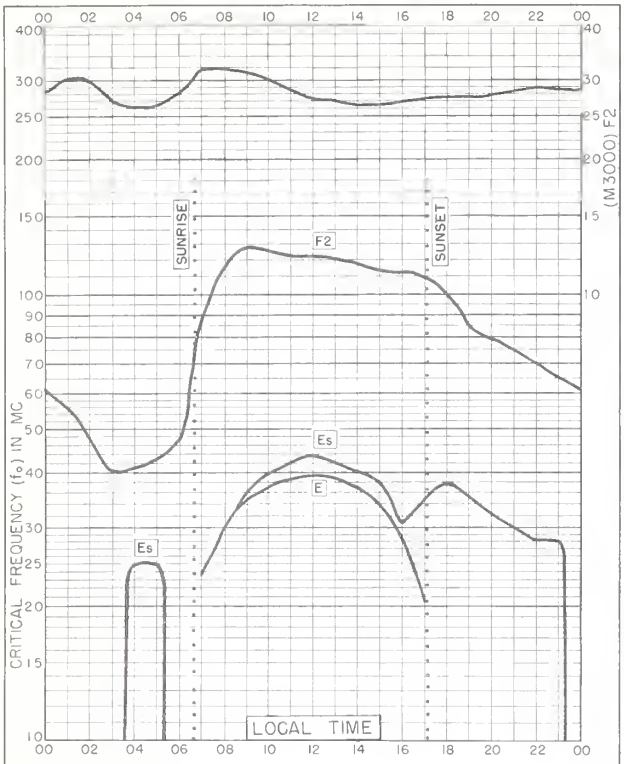



Fig. 117. SAN SALVADOR I.
24.1°N, 74.5° W DECEMBER 1958

NBS 503

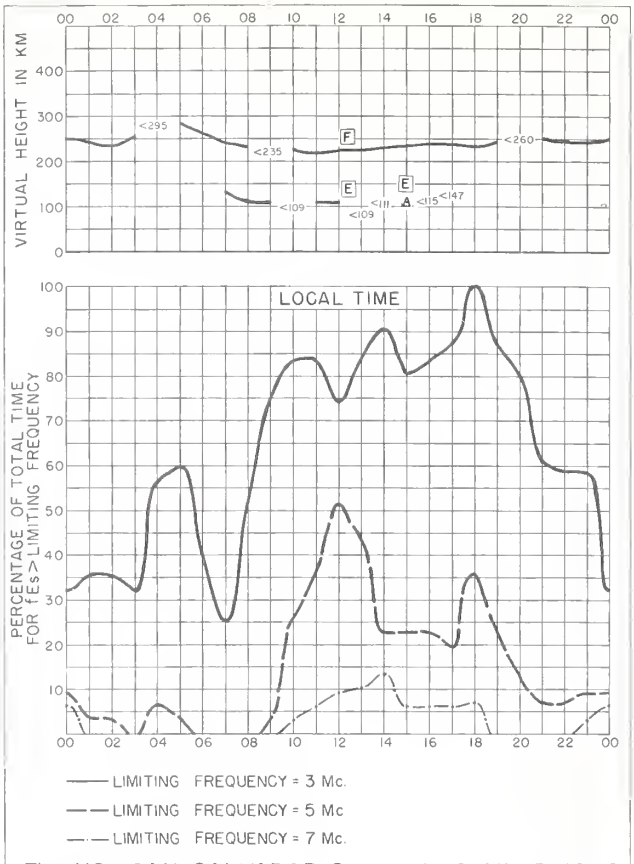



Fig. 118. SAN SALVADOR I. DECEMBER 1958

NBS 490

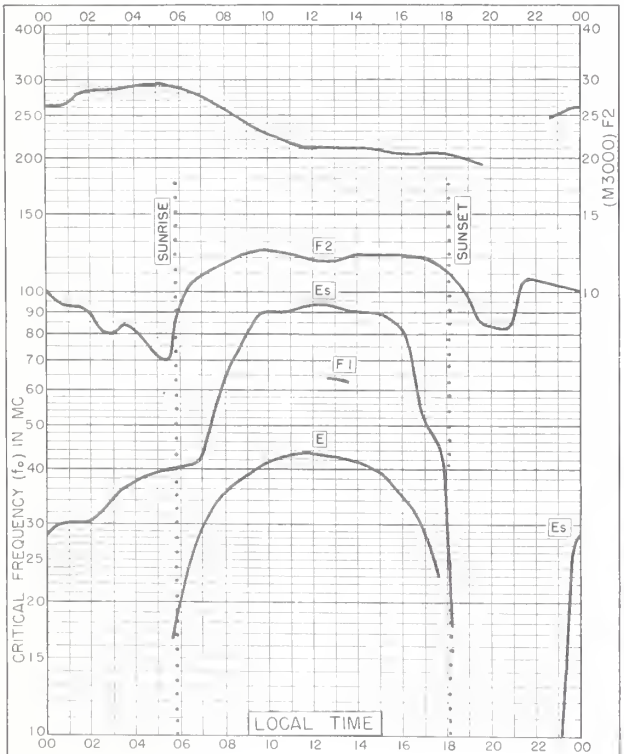



Fig. 119. NATAL, BRAZIL
5.3°S, 35.1° W DECEMBER 1958

NBS 503

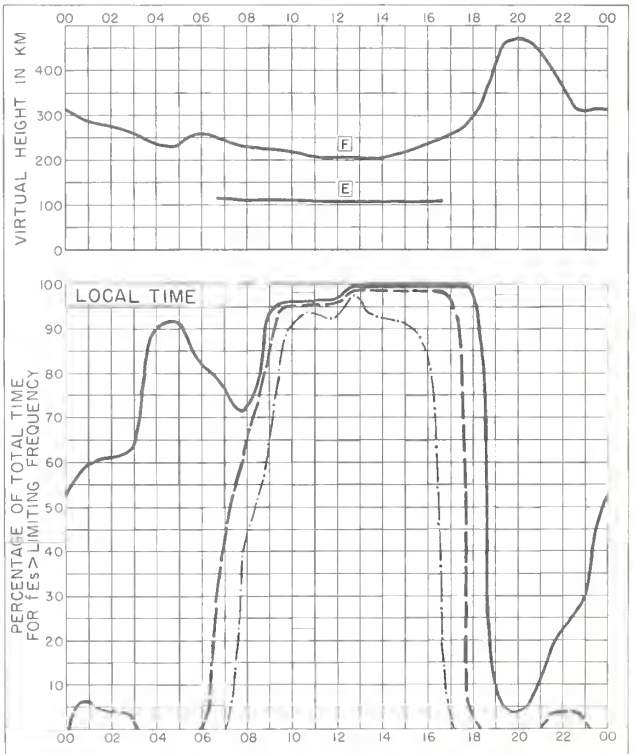



Fig. 120. NATAL, BRAZIL DECEMBER 1958

NBS 490

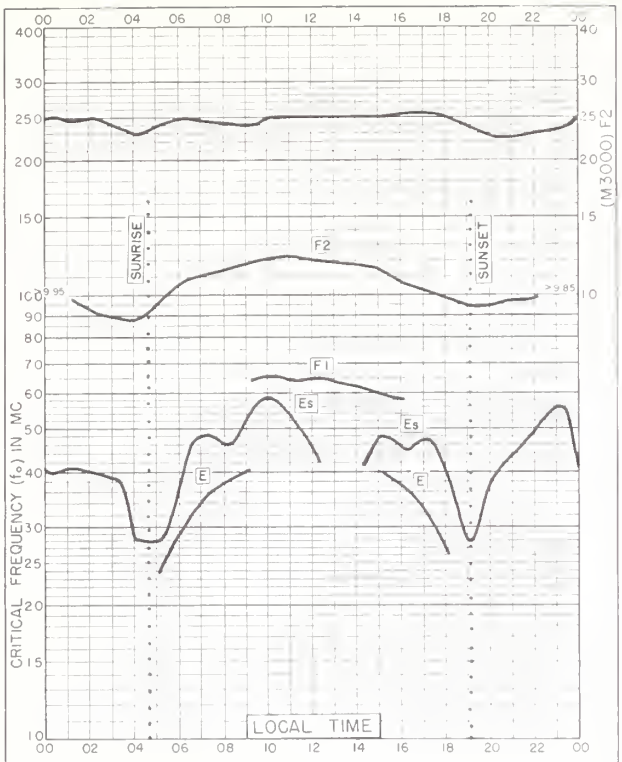



Fig. 121. CONCEPCION, CHILE
36.6°S, 73.0°W DECEMBER 1958

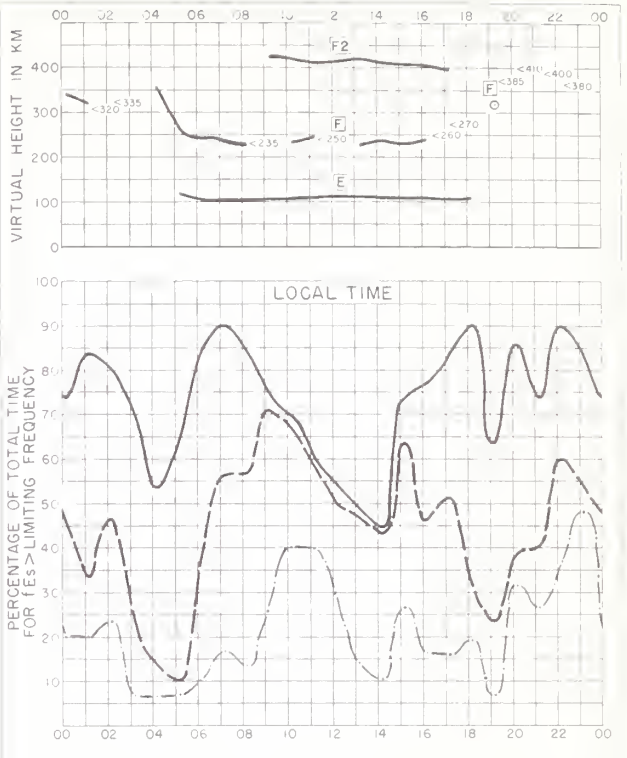



Fig. 122. CONCEPCION, CHILE DECEMBER 1958

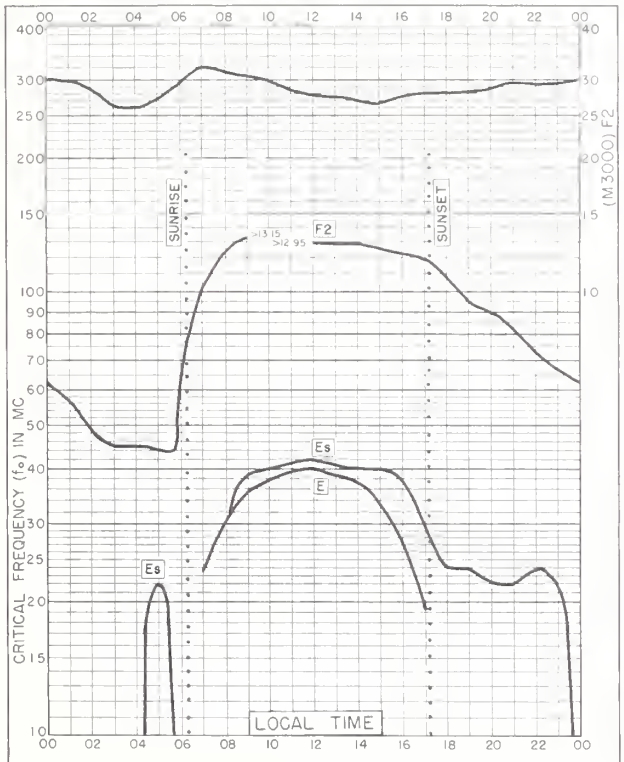



Fig. 123. SAN SALVADOR I.
24.1°N, 74.5°W NOVEMBER 1958

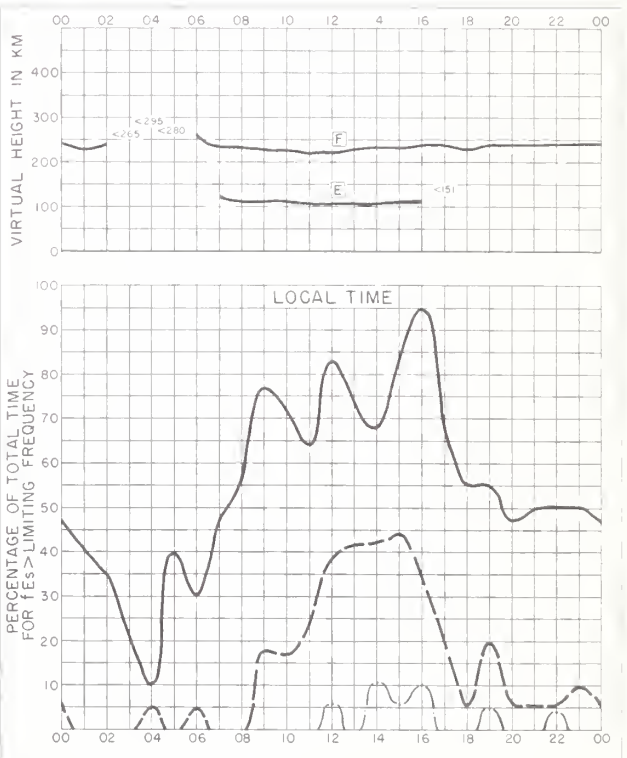



Fig. 124. SAN SALVADOR I. NOVEMBER 1958

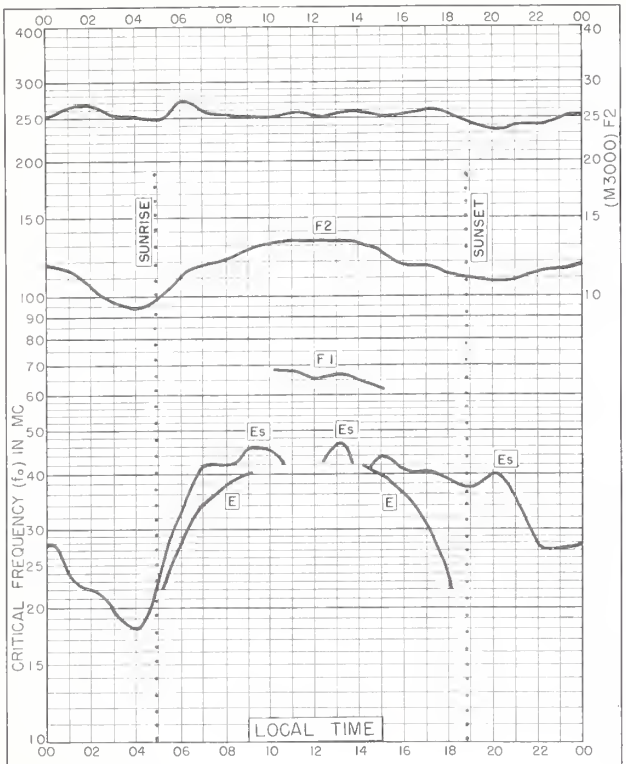



Fig. 125. CONCEPCION, CHILE
36.6°S, 73.0°W NOVEMBER 1958

NBS 503

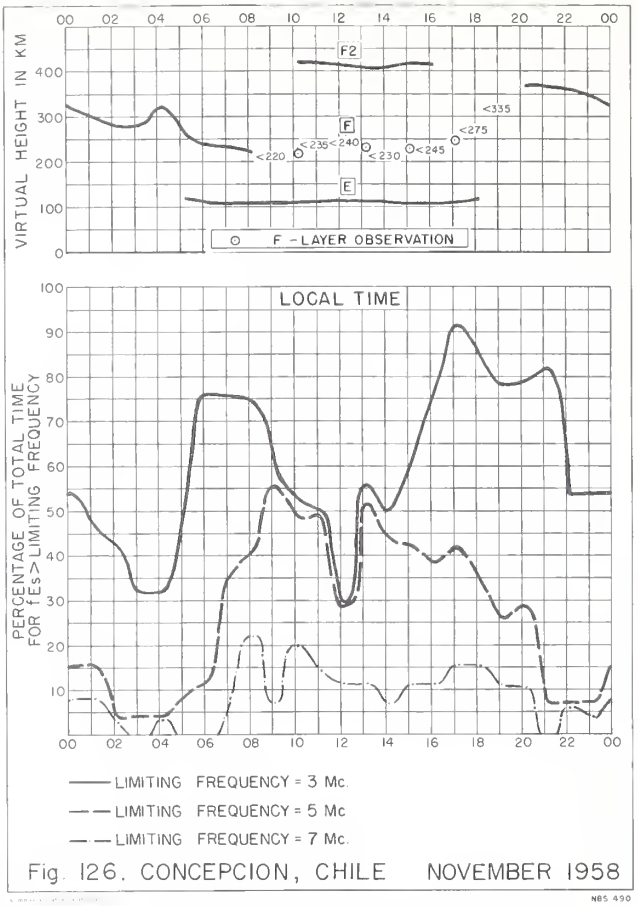



Fig. 126. CONCEPCION, CHILE NOVEMBER 1958

NBS 490


Fig. 127. BYRD STATION
80.0°S, 120.0°W NOVEMBER 1958

NBS 503

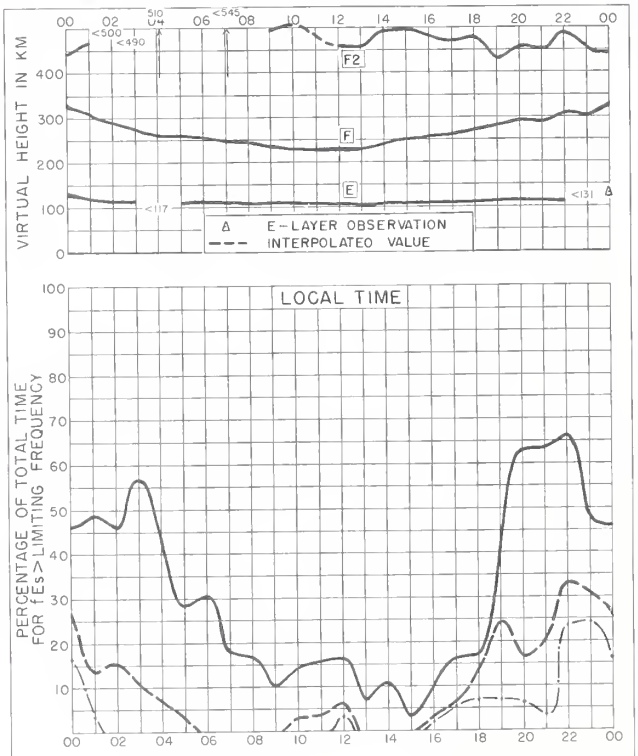



Fig. 128. BYRD STATION NOVEMBER 1958

NBS 490

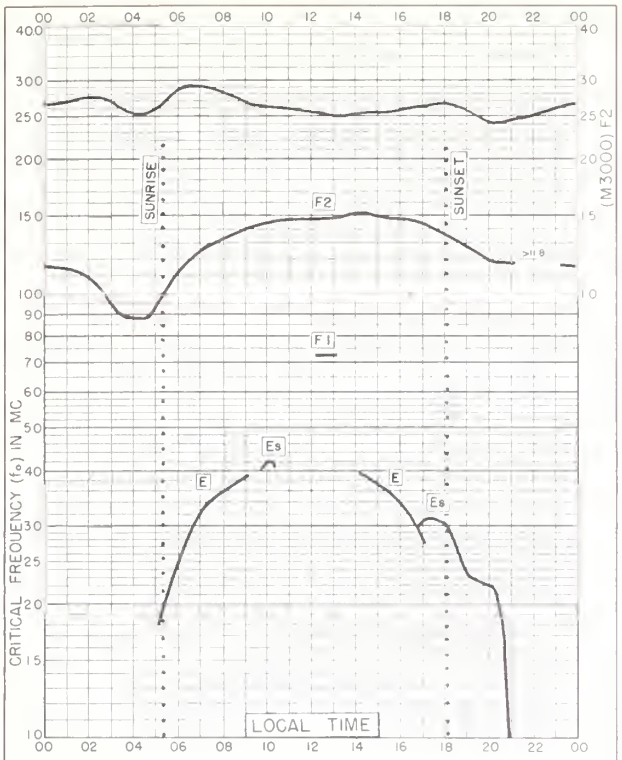



Fig. 129. CONCEPCION, CHILE
36.6°S, 73.0°W OCTOBER 1958

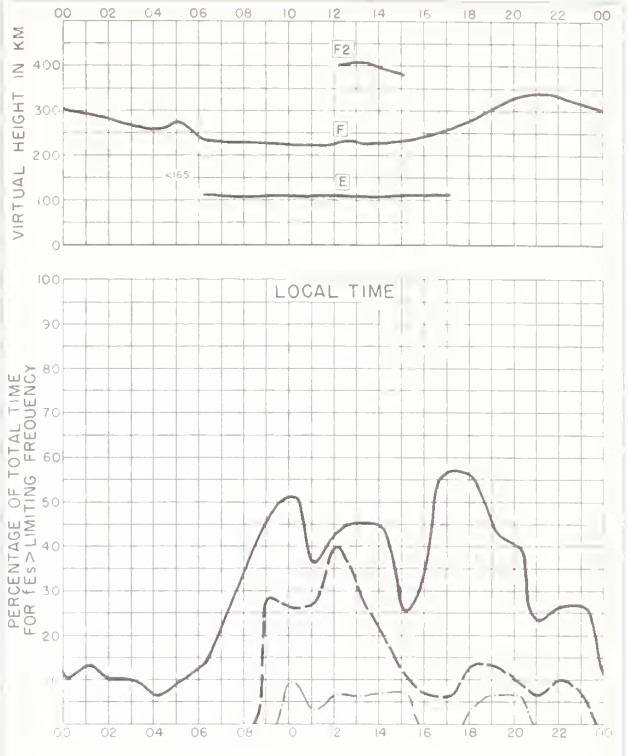



Fig. 130. CONCEPCION, CHILE OCTOBER 1958

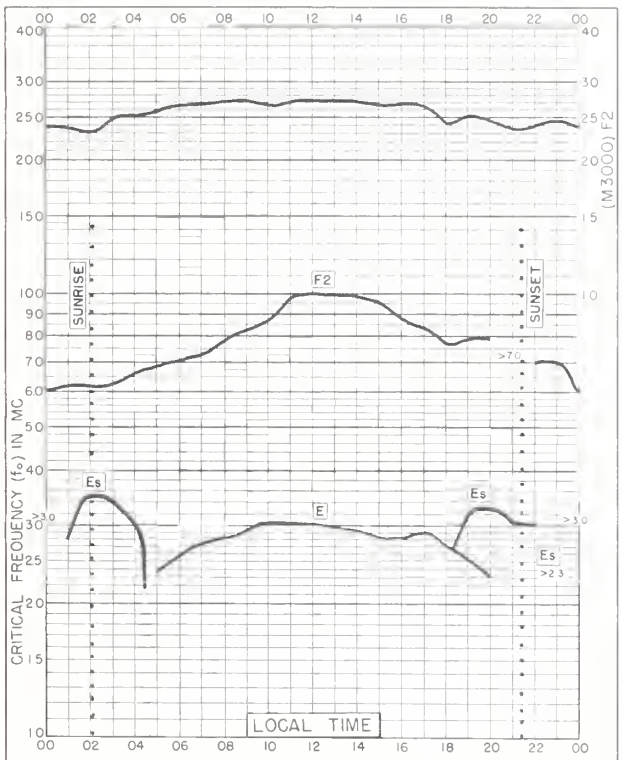



Fig. 131. BYRD STATION
80.0°S, 120.0°W OCTOBER 1958

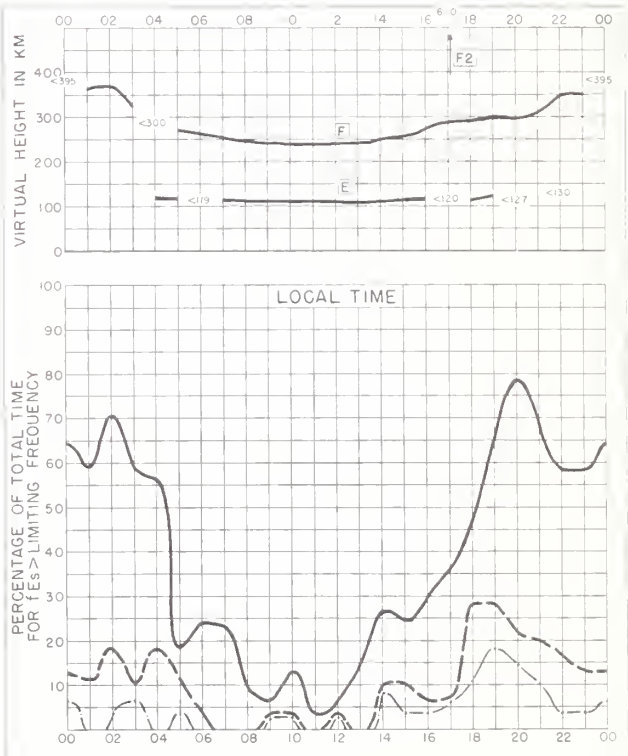



Fig. 132. BYRD STATION OCTOBER 1958

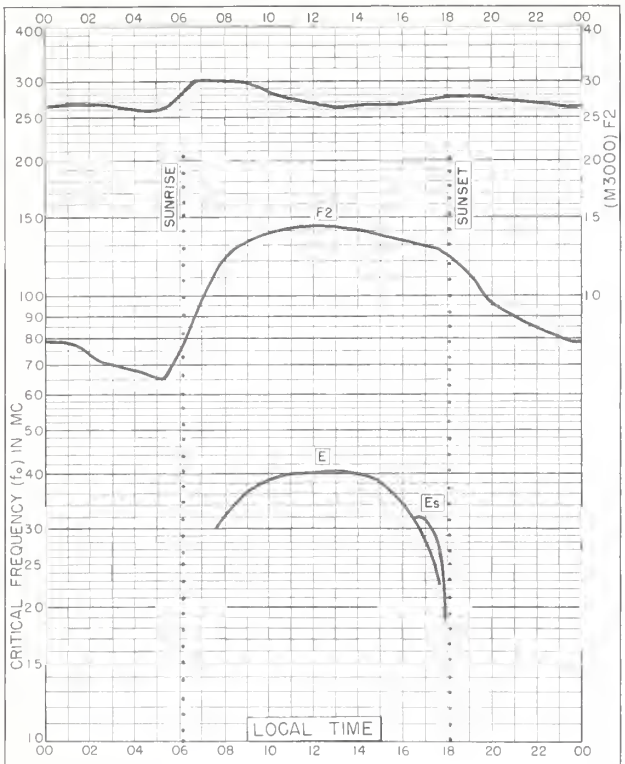
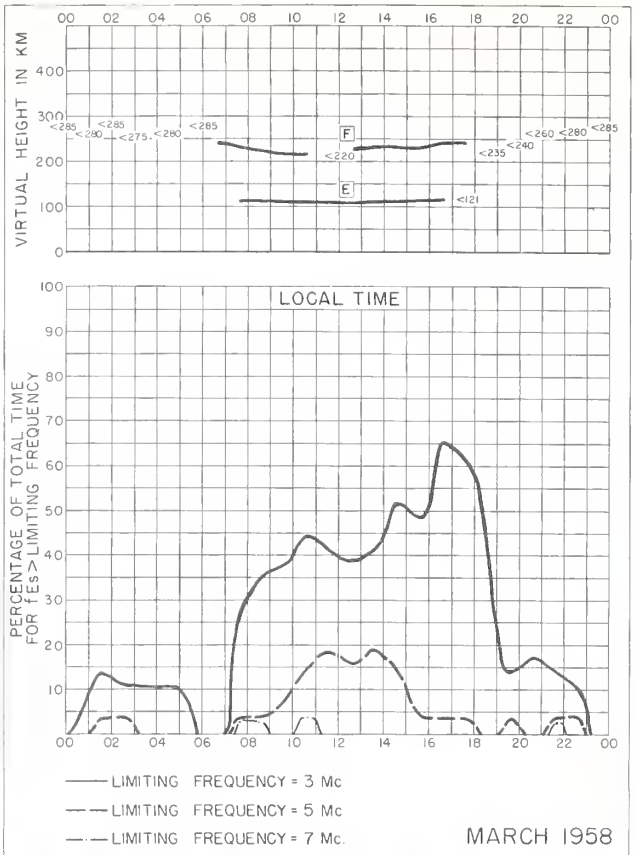



Fig. 133. CAPE CANAVERAL, FLORIDA
28.4°N, 80.6°W MARCH 1958

NBS 503




MARCH 1958

Fig. 134. CAPE CANAVERAL, FLORIDA

NBS 490


Fig. 135. BUDAPEST, HUNGARY
47.4°N, 19.2°E MAY 1957

NBS 503

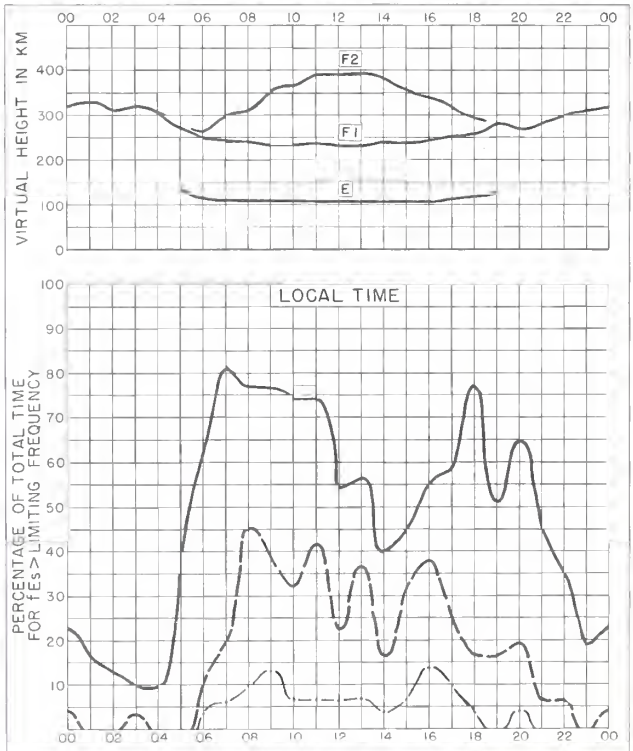



Fig. 136. BUDAPEST, HUNGARY MAY 1957

NBS 490

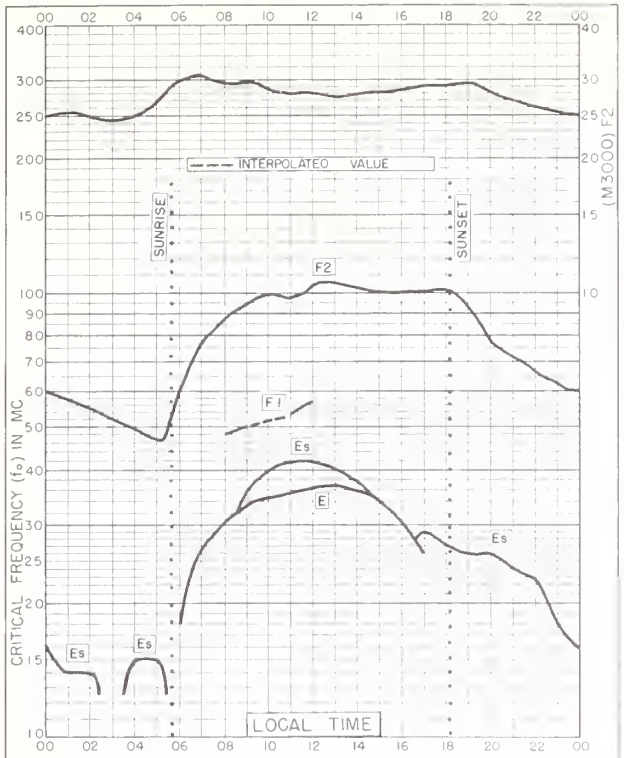



Fig. 137. FREIBURG, GERMANY
48.1°N, 7.8°E SEPTEMBER 1956

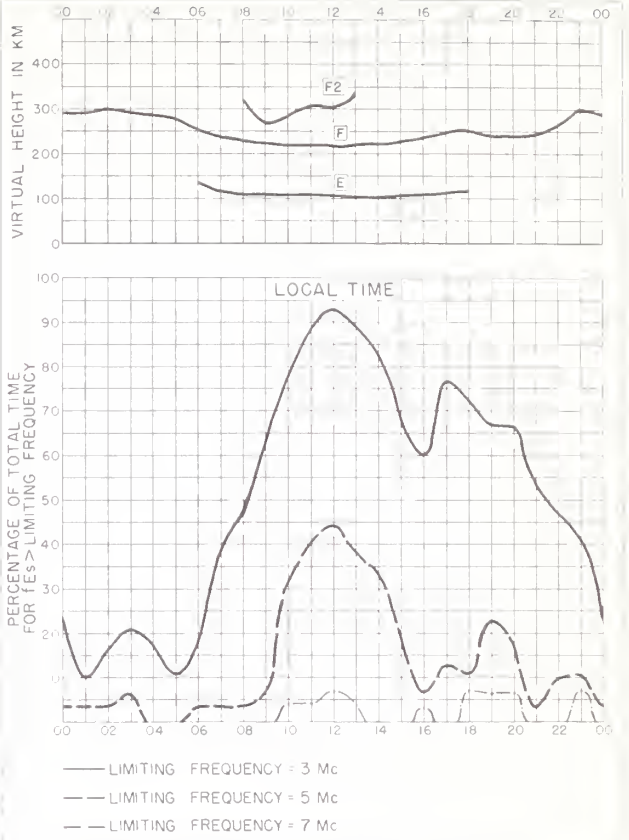



Fig. 138. FREIBURG, GERMANY SEPTEMBER 1956

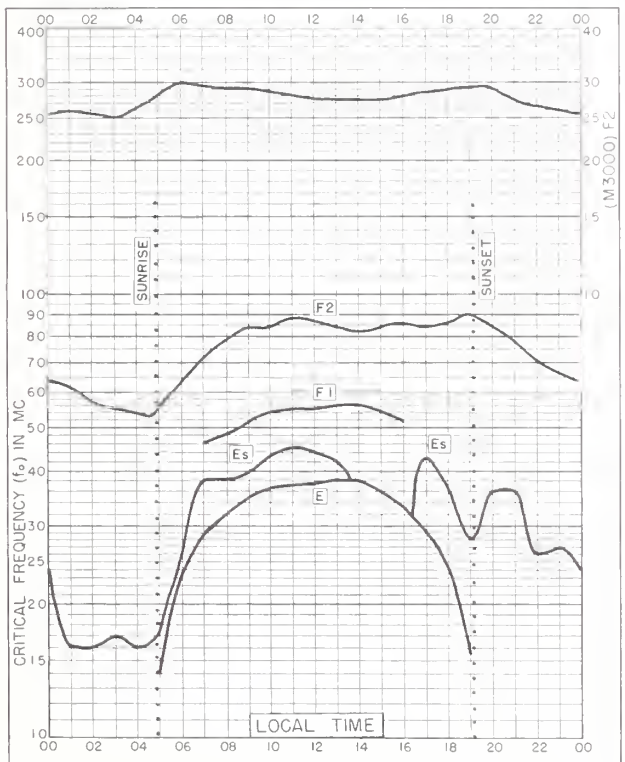



Fig. 139. FREIBURG, GERMANY
48.1°N, 7.8°E AUGUST 1956

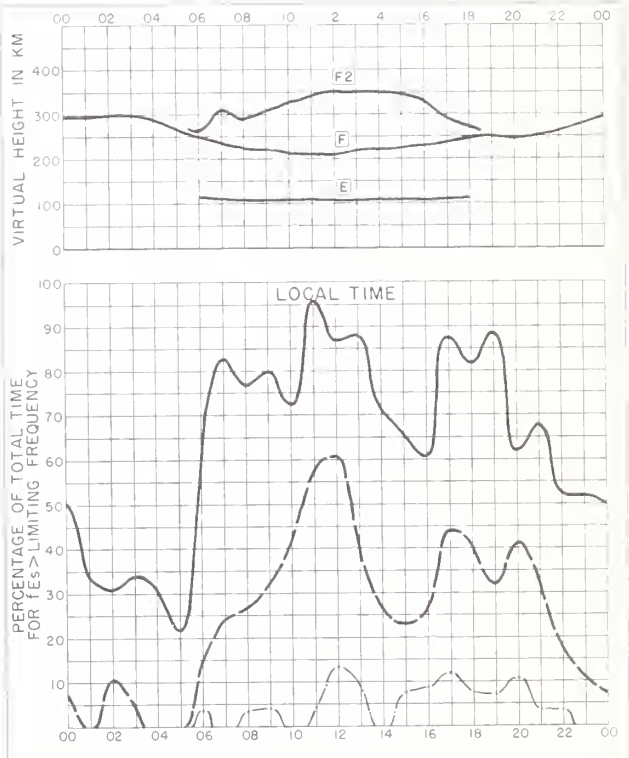



Fig. 140. FREIBURG, GERMANY AUGUST 1956


Fig. 141. FREIBURG, GERMANY
48.1°N, 7.8°E JULY 1956

NBS 503

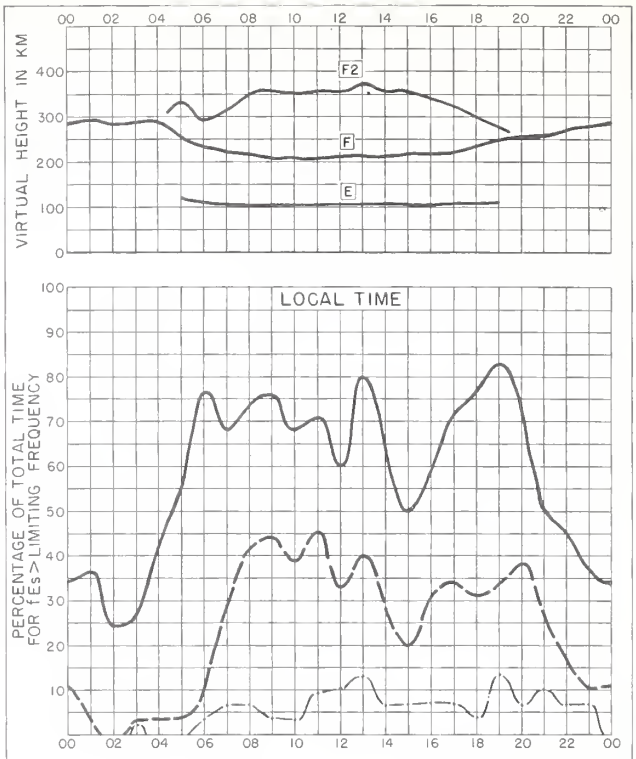



Fig. 142. FREIBURG, GERMANY JULY 1956

NBS 490

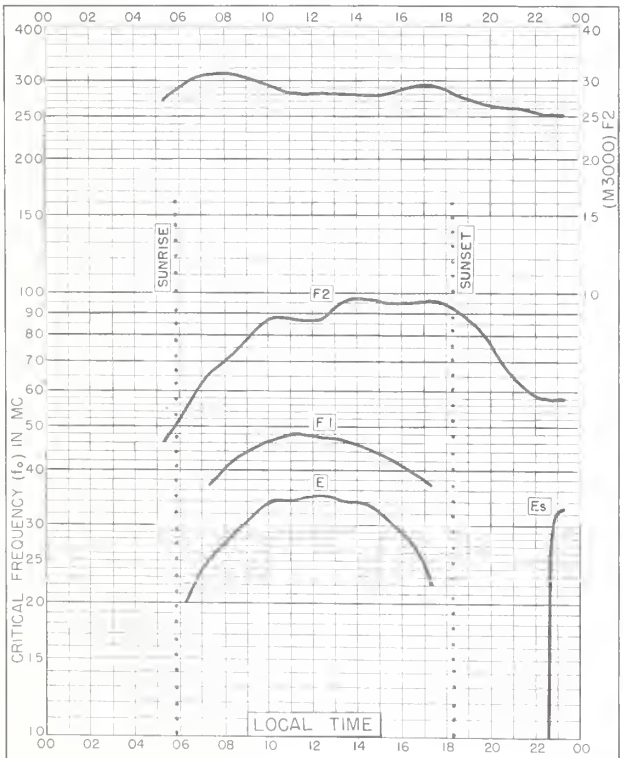



Fig. 143. CAMPBELL I.
52.5°S, 169.2°E MARCH 1956

NBS 503

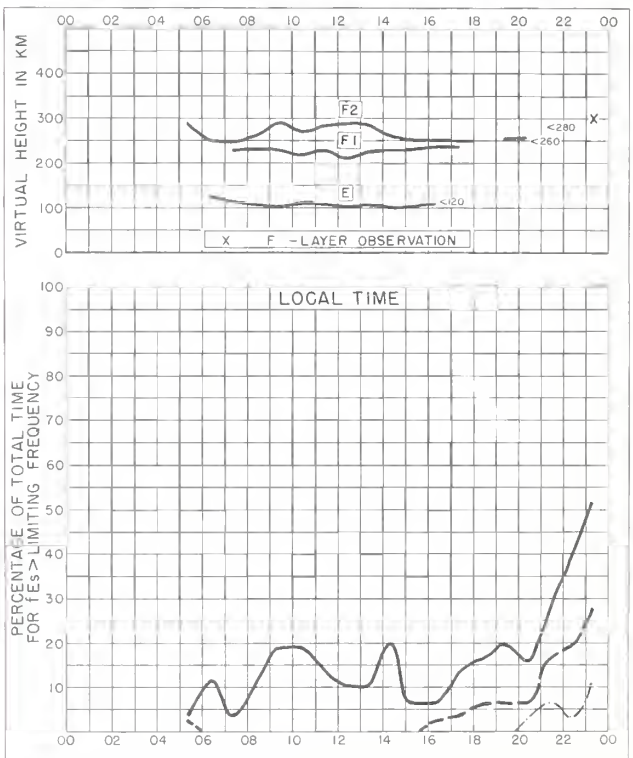



Fig. 144. CAMPBELL I. MARCH 1956

NBS 490

## Index of Tables and Graphs of Ionospheric Data

## in CRPL-F188 (Part A)


| | Table page | Figure page |
|---|---|---|
| Adak, Alaska | | |
| December 1959 | 1 | 15 |
| Akita, Japan | | |
| June 1959 | 5 | 25 |
| May 1959 | 7 | 33 |
| Anchorage, Alaska | | |
| December 1959 | 1 | 14 |
| Baguio, P. I. | | |
| December 1959 | 2 | 17 |
| Bogota, Colombia | | |
| November 1959 | 3 | 21 |
| Boulder, Colorado | | |
| November 1959 | 3 | 20 |
| October 1959 | 4 | 23 |
| Brisbane, Australia | | |
| May 1959 | 9 | 37 |
| Budapest, Hungary | | |
| May 1959 | 7 | 31 |
| May 1957 | 12 | 46 |
| Bunia, Belgian Congo | | |
| May 1959 | 8 | 35 |
| Byrd Station | | |
| November 1958 | 11 | 44 |
| October 1958 | 11 | 45 |
| Campbell I. | | |
| March 1956 | 12 | 48 |
| Cape Canaveral, Florida | | |
| March 1958 | 12 | 46 |
| Capetown, Union of S. Africa | | |
| April 1959 | 9 | 39 |
| Concepcion, Chile | | |
| October 1959 | 4 | 24 |
| January 1959 | 10 | 41 |
| December 1958 | 11 | 43 |
| November 1958 | 11 | 44 |
| October 1958 | 11 | 45 |
| Elisabethville, Belgian Congo | | |
| May 1959 | 8 | 36 |
| Fairbanks, Alaska | | |
| December 1959 | 1 | 14 |
| November 1959 | 2 | 18 |

Index (CRPL-F188 (Part A), continued)


| | Table page | Figure page |
|---|---|---|
| Falkland Is. | | |
| June 1959 | 5 | 27 |
| May 1959 | 9 | 37 |
| Formosa, China | | |
| April 1959 | 9 | 38 |
| Freiburg, Germany | | |
| September 1956 | 12 | 47 |
| August 1956 | 12 | 47 |
| July 1956 | 12 | 48 |
| Godhavn, Greenland | | |
| October 1959 | 4 | 22 |
| Grand Bahama I. | | |
| October 1959 | 4 | 24 |
| Huancayo, Peru | | |
| December 1959 | 2 | 18 |
| Ibadan, Nigeria | | |
| May 1959 | 8 | 34 |
| Johannesburg, Union of S. Africa | | |
| April 1959 | 9 | 39 |
| Kiruna, Sweden | | |
| May 1959 | 6 | 28 |
| Leopoldville, Belgian Congo | | |
| May 1959 | 8 | 36 |
| Lulea, Sweden | | |
| May 1959 | 6 | 29 |
| Lycksele, Sweden | | |
| May 1959 | 6 | 29 |
| Maui, Hawaii | | |
| December 1959 | 2 | 16 |
| Moscow, U.S.S.R. | | |
| May 1959 | 6 | 30 |
| Narsarssuak, Greenland | | |
| December 1959 | 1 | 15 |
| November 1959 | 3 | 19 |
| October 1959 | 4 | 23 |
| Natal, Brazil | | |
| December 1958 | 10 | 42 |
| Nurmijarvi, Finland | | |
| May 1959 | 6 | 30 |
| Point Barrow, Alaska | | |
| December 1959 | 1 | 13 |
| Resolute Bay, Canada | | |
| April 1959 | 9 | 38 |

Index (CRPL-F188 (Part A), concluded)


| | Table page | Figure page |
|---|---|---|
| Reykjavik, Iceland | | |
| November 1959 | 3 | 19 |
| Rome, Italy | | |
| May 1959 | 7 | 32 |
| San Salvador I. | | |
| January 1959 | 10 | 41 |
| December 1958 | 10 | 42 |
| November 1958 | 11 | 43 |
| Singapore, British Malaya | | |
| May 1959 | 8 | 35 |
| Slough, England | | |
| May 1959 | 7 | 31 |
| Sodankyla, Finland | | |
| May 1959 | 6 | 28 |
| Talara, Peru | | |
| December 1959 | 2 | 17 |
| November 1959 | 3 | 21 |
| Thule, Greenland | | |
| December 1959 | 1 | 13 |
| October 1959 | 4 | 22 |
| Tokyo, Japan | | |
| June 1959 | 5 | 26 |
| May 1959 | 7 | 33 |
| Tromso, Norway | | |
| May 1959 | 5 | 27 |
| Upsala, Sweden | | |
| January 1959 | 10 | 40 |
| Wakkanai, Japan | | |
| June 1959 | 5 | 25 |
| May 1959 | 7 | 32 |
| Washington, D. C. | | |
| December 1959 | 2 | 16 |
| White Sands, New Mexico | | |
| November 1959 | 3 | 20 |
| Winnipeg, Canada | | |
| January 1959 | 10 | 40 |
| Yamagawa, Japan | | |
| June 1959 | 5 | 26 |
| May 1959 | 8 | 34 |

# CRPL Reports

[A detailed list of CRPL publications is available from the Central Radio Propagation Laboratory upon request]

*Daily:*

Radio disturbance forecasts, every half hour from broadcast stations WWV and WWVH of the National Bureau of Standards.

Telephoned and telegraphed reports of ionospheric, solar, geomagnetic, and radio propagation data.

*Semiweekly:*

CRPL—J. North Atlantic Radio Propagation Forecast (of days most likely to be disturbed during following month).

CRPL—Jp. North Pacific Radio Propagation Forecast (of days most likely to be disturbed during following month).

*Semimonthly:*

CRPL—Ja. Semimonthly Frequency Revision Factors For CRPL Basic Radio Propagation Prediction Reports.

*Monthly:*

CRPL—D Basic Radio Propagation Predictions—Three months in advance. (Dept. of the Army, TB 11—499–, monthly supplements to TM 11–499; Dept. of the Air Force, TO 31–3–28 series). On sale by Superintendent of Documents.* Members of the Armed Forces should address cognizant military office.

CRPL—F. (Part A). Ionospheric Data.
(Part B). Solar-Geophysical Data.
Limited distribution. These publications are in general disseminated only to those individuals or scientific organizations which collaborate in the exchange of ionospheric, solar, geomagnetic, or other radio propagation data.

*Catalog of Data:*

A catalog of records and data on file at the U. S. IGY World Data Center A for Airglow and Ionosphere, Boulder Laboratories, National Bureau of Standards, which includes a fee schedule to cover the cost of supplying copies, is available upon request.

The publications listed above may be obtained without charge from the Central Radio Propagation Laboratory, National Bureau of Standards, Boulder Laboratories, Boulder, Colorado, unless otherwise indicated. Please note that the F series is not generally available.

*Circulars of the National Bureau of Standards pertaining to Radio Sky Wave Transmission:*

NBS Circular 462. Ionospheric Radio Propagation. $1.25.
NBS Circular 465. Instructions for the Use of Basic Radio Propagation Predictions. 30 cents.
NBS Circular 557. Worldwide Radio Noise Levels Expected in the Frequency Band 10 Kilocycles to 100 Megacycles. 30 cents.
NBS Circular 582. Worldwide Occurrence of Sporadic *E*. $3.25.

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